arj7192@gmail.com

ASHISH JHA

ch.linkedin.com/in/ashishrj
bitbucket.org/arj7192
github.com/arj7192

Work Experience

Senior Data Scientist | **Tractable** | **Oct 2018 – Present**

- Building Car Insurance Claims Fraud Detection AI Pipeline. Tabular Claims Data + Multi Task DNN Model (PyTorch)

Senior Data Scientist | **Sentiance** | **May 2016 – Aug 2018**

- Leading the major data science team of 4 data scientists and 2 data engineers working on mobile sensor data.
- Constructing an xgboost + LSTM framework (in keras) for GPS based transport mode classification.
- Implemented a user timeline event predictor using deep learning - CNN + LSTM (on tensorflow).
- Created data science tools using (i) spark (for spark jobs) (ii) boto3 (for AWS), (iii) javascript (for labelling data).
- Developed smart home AI based solutions for Philips Vue and Samsung SmartThings Hub.

Internship + Master Thesis | **Sony Deutschland GmbH** | **Aug 2015 – Feb 2016**

- Implemented a CNN based audio event detection model with Theano on the UrbanSound dataset.

Applications Engineer | **Oracle India Pvt Ltd** | **Jun 2013 – Aug 2014**

- Developed APIs for Social Customer Service project that were included in Oracle RightNow 14.8 product release
- Created a system-startup shell script for my team that builds the trunk, database and runs the unit-tests daily

Education

Lausanne, Switzerland | **École Polytechnique Fédérale de Lausanne** | **Sep 2014 – Feb 2016**

- M.S. in Computer Science, GPA: 5.67/6.0 (ECTS)
- Coursework: Pattern Classification and Machine Learning; Big Data; Computer Vision; Natural Language Processing; Distributed Algorithms; Distributed Information Systems; Advanced Computer Graphics

Roorkee, India | **Indian Institute of Technology, Roorkee** | **Jul 2009 – May 2013**

- B.Tech. in Electrical Engineering, CGPA: 9.14/10.0
- Coursework: Digital Image Processing; Data Structures; Programming with C++;

Projects

- **Human pose estimation using Deep Learning [EPFL]** (2015). Used RGB images from Human80K dataset to regress 3D poses using deep convolutional neural network. Obtained state-of-the-art results. Theano, Matlab.
- **Deep Learning to identify patterns in Manuscripts [EPFL]** (2015). Implemented image pre-processing task for manuscript pages and extraction of words and sentences from handwritten text. OpenCV-Java, Spark.
- **Travel Search Optimizer [Self]** (2015 - present). Finding when-to-search for best availability and prices at sites like blablacar by learning the variation patterns using neural networks. Scikit-Learn, TensorFlow, Amazon EC2.
- **Implicit feedback based Recommender System [EPFL]** (2014). Built a song recommender system based on user-user collaborative filtering using alternating least-squares model. Matlab.
- **Person detection in Images [EPFL]** (2014). Designed an SVM and a logistic regression model using HOG (Histogram of Gradients) of images as input features. Evaluated using ROC curve. Matlab

Languages and Technologies

- **Python** (sklearn, tensorflow, keras, pandas, jupyter, flask, seaborn); **C++**/C ; **SQL**; D3js; HTML; Javascript
- **AWS** (EC2, S3, EBS, EFS, AMI,..); **Spark**; **Docker**; **Kafka**; **Linux**; **Git**; PyCharm; Datadog; Jira; Confluence

Additional Experience and Awards

- **Second Prize, IBM Technology Contest 2011:** For : 'Using Wearable Technology Against Rape in India'
- **World finalists, Thought For Food, Berlin, 2013. Ambassador, Thought For Food, Europe, (2017-now)**
- **Coursera courses:** Mining Massive Datasets, Machine Learning, Deep Learning, Algorithms

ANTLER INNOVATION UK LIMITED

Company No: 11707590
145, City Road, London, England, EC1V 1AZ

April 23, 2019
London, UK

Letter of Recommendation

For the attention of Tech Nation:

Regarding the application of Mr Ashish Ranjan Jha for Exceptional Talent status in the UK in the field of digital technology.

Ashish Ranjan Jha has been accepted on Antler's start-up program in London, starting in June, 10 2019.

Antler (www.antler.co) is a global start-up generator and early-stage VC that is building the next big wave of tech. With the mission to turn exceptional individuals into great founders, Antler aims to create hundreds of companies globally over the next five years. We select the world's most brilliant and determined people, help them find the right co-founder(s) and connect them to a top tier network of advisors and experts worldwide. Antler breaks the barriers to entrepreneurship by providing funding from day one and building strong teams from the ground up, while enabling our founders to rapidly launch and scale their ideas.

Our program is a unique opportunity for someone like Ashish Ranjan Jha to build an innovative and impactful business in the UK, and it is exactly people like him that allows to run our business model. Ashish Ranjan Jha is an exceptional talent that has been at the forefront of Data Science. Having 5+ years of experience in the tech sector and more recently a Senior Data Scientist– Tractable, Sentiance & Sony– he has helped them scale to millions of uses and has been instrumental in setting up Car insurance claims fraud detection by building an AI pipeline in Tractable. Over his career he has hired, mentored and managed teams to deliver exceptional results.

In summary, Ashish Ranjan Jha brings experience as a business head of having set up teams, scale up products and regional expansion from scratch, has the subject matter expertise in mobility and urban sector built through constant learning and education, and has been an exceptional leader in furthering the cause of innovative technologies in those sectors by being a spokesperson for mobility, telematics and urban innovation at large.

We highly recommend Ashish Ranjan Jha for Exceptional Talent status in the UK.

If any further clarifications are needed, I can be reached at:
Email: @antler.co
Phone:
https://www.linkedin.com/in/l

Antler Innovation UK Limited

____

Kvaalen
Partner

sentiance
motion moments magic

Sentiance NV
Korte Lozanastraat 20-26 | 2018 Antwerp | Belgium
www.sentiance.com | +32 3 369 9696 | @Sentiance

Date: 26-04-2019

For the attention of Tech Nation:
Regarding the application of Mr Ashish Ranjan Jha for Exceptional Talent / Exceptional Promise status in the UK in the field of digital technology.

I, , have come to know the applicant since May 2016 in the capacity of data scientist.

As an emerging start-up back in 2016, Sentiance was looking to expand its data science team which at the time consisted of only 3 people. As chief data scientist at that moment, I was tasked to bring in a top talent that could help us build out a world class team

After a thorough recruitment procedure consisting of several technical tests and interviews, Ashish emerged as our top candidate out of a pool of 12 eligible candidates that were carefully selected from 180 applications. His theoretical knowledge and understanding of the field of artificial intelligence was perplexing and since then, no other candidate ever scored as high on our standardized technical tests.

Ashish was hired as machine learning expert in our data science team, and proved an invaluable coach and leader as our team grew from 3 people to 15 people over the course of that year.

During his first year at Sentiance, Ashish researched, implemented and productionized a state-of-the-art behavioral prediction algorithm based on recurrent neural networks. At a time where deep learning was still in its infancy, this contribution quickly became a USP for Sentiance, and continues to do so today, directly generating a significant portion of Sentiance's recurring revenue.

Apart from his incredible technical capabilities, Ashish quickly proved to be a talented leader as he took the lead on a big smart-home project in the IOT space together with Samsung, our main investor at that time. Ashish successfully balanced client communication with steering and coaching a team of junior data scientists and engineers with delivering state-of-the-art results in a timely and professional manner.

To capitalize on this, we decided to promote Ashish to senior data scientist after which he became responsible for hiring and coaching new AI researchers on the one hand, and for heading up our AI research team, called 'Future Years', on the other hand.

As Chief Innovation officer, I can honestly state that the combination of deep technical knowledge and leadership skills I found in Ashish, is extremely rare to find. Sentiance grew from 8 people in 1 office to 70 people with offices in 6 different countries during the time Ashish was with us.

Given his talent, Ashish has ample opportunities when it comes to the job market. However, it would be a waste to not apply that talent either at a state-of-the-art AI company like Facebook or Google, or at a newly founded start-up company where he could change the world for the better. In both cases, moving to London or the UK in general would be any AI researcher's first choice.

It is only through people like Ashish that innovation can truly take place, and any company or even country would be enriched immediately if it were able to attract this kind of talent.

Concretely, I strongly believe Ashish will directly impact the UK digital economy if he were given the chance to start a new high tech company and grow it like he grew Sentiance, from start-up to internationally recognized AI scale-up in only a few years time.

If you have any questions concerning the information contained in this letter, please contact me directly.

Sincerely,

@sentiance.com
Phone:
LinkedIn: https://www.linkedin.com/in/v /
Resume: Attached

PAID BY
Tractable Ltd

Mr Ashish Jha

EMPLOYMENT DETAILS

Pay Period: **01/02/2019 - 28/02/2019 (Tax Month 11)**

TRACTABLE

PAID BY
Tractable Ltd

Mr Ashish Jha

EMPLOYMENT DETAILS

Pay Period: **01/03/2019 - 31/03/2019 (Tax Month 12)**

SERVICE AGREEMENT

DATED 21 June 2018

PARTIES

(1) **TRACTABLE LTD.** (

(2) **Ashish Ranjan Jha** (the "**Executive**"). Ashish Ranjan Jha

OPERATIVE PROVISIONS

1.

1.1

1.2

1.3

2.

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6.3

7.

IN WITNESS whereof a duly authorised representative of the Company has executed this agreement and the Executive has executed this agreement as his Deed on the date of this agreement.

Signed and delivered by the said	) Ashish Ranjan Jha
ASHISH RANJAN JHA as his deed	) Ashish Ranjan Jha (Jun 26, 2018)
in the presence of:	) Jun 26, 2018

Signed by	
behalf of Tractable Ltd.	) Jun 26, 2018

SONY

Sony Deutschland GmbH
Stuttgart Technology Center

Mr Ashish Ranjan Jha 07.05.2015

Masters thesis

Dear Mr. Jha,

As already mentioned in my email please find enclosed your employment contract, the employee questionnaire and the checklist.

Please sign one version of the contract, complete the empoyee questionnaire and return both to me as well as the documents you have already by hand.

We are looking forward to welcoming you in Sony. Please contact me if you have any quesitons or inquiries.

Best regards,

Sony Deutschland GmbH
Human Resource Services

Bundesagentur für Arbeit
Zentrale Auslands-
und Fachvermittlung (ZAV)

Bundesagentur für Arbeit
Zentrale Auslands-
und Fachvermittlung (ZAV)

SONY

Sony Deutschland GmbH
Stuttgart Technology Center

STUDENT CONTRACT
for preparation of his
MASTER THESIS

Between Sony Deutschland GmbH
Stuttgart Technology Center

(named hereinafter 'Sony')

and

Mr Ashish Ranjan Jha
residing at

(named hereinafter 'student')

1. Type of thesis

The student, according to the provisional subject of the Master Thesis:

"Context representation and classification ",

The contract is based on a valid residence permit which allows the student to write his thesis in Germany.

2. Duration of the thesis work

SONY

3. Probationary period

4. Payment

5. Working hours

6. Vacation

7. Thesis

8. Other agreements

SONY

9. Confidentiality

10. Final Provisions

Stuttgart, this 30.04.2015 ____________, this ________

Sony Deutschland GmbH

i. V. i. V.

____

Ashish Ranjan Jha

Predictive superpowers: Applying deep learning on mobile sensor data to predict human behavior

ARTIFICIAL INTELLIGENCE DATA SCIENCE

At Sentiance we believe that smart devices, applications and the Internet of Things should work on your behalf, conform to your desires and preempt your needs. We call it the Internet of You. We are building the intelligence and contextual engine to fuel the Internet of You, by analyzing sensor data to recognize behavioral patterns and interpret real-time context.

Our mission is to enable companies not only to be context aware and deliver timely and highly personalized experiences (sense & respond) but also to be one step ahead and proactively provide relevant recommendations by predicting context and preempting needs (predict & engage).

By leveraging smartphone sensor data such as accelerometer, gyroscope and location information, we detect a person's context on different levels which we call the 6 W's of context: Who-What-Where-When-How-Why. Although location (Where) and activity detection (What) enable some degree of hyper-targeting, without knowing the user's complete context including his intent and personality profile, your message may still lack relevance.

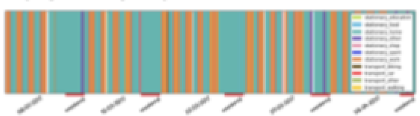
Where is the person coming from and where is he going? Knowing the before and after trip activities adds highly relevant contextual insights.

So, predictive analytics is a big thing to us. Our aim is to analyze behavioral patterns based on real-time sensor data and build predictive models that can foresee the future.

PREDICTING A SERIES OF EVENTS TO EXPLAIN INTENT

The input to our prediction model is an event timeline such as:

The figure below illustrates a simple version of a real user's timeline with a very regular lifestyle that serves as input to the prediction model. Note that daily home/work commutes and weekend periods are clearly recognizable at first sight already in this case.



To foresee not only what a person will be doing, but also why he will be doing it, we need to be able to predict several events ahead. Consider the following example:

In order to explain the intent of the predicted 'car' event, our model needs to be able to understand what is likely to happen further in the future. For example:

Based on the current and future events, we can now safely assume that the underlying intent of the predicted 'car' event will in fact be 'commute to work'. So predicting further ahead in time allows us to assign meaning to both current and predicted events. These semantics are what we call moments, examples of which are 'shopping routine', 'commute to work', 'children drop-off', 'business trip', 'holiday', and more.

Our first attempt to solve the prediction problem boiled down to a simple Markov Chain like approach where we modeled a sequence of events as:

$$p(x_1, \dots, x_n) = p(x_1)p(x_2|x_1)\dots p(x_n|x_{n-1})$$

The problem with this approach however, is that it is limited by the Markov assumption stating that the conditional probability distribution of future states only depends on the current state. As a result, this

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Thus, the network fails to learn that a person that arrives at work by bike, is also likely to leave work by bike in the evening. To avoid this kind of behavior, we would like to condition our likelihoods on all past observations, basically modeling the following joint probability:

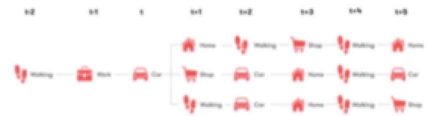
$$p(x_1, \dots, x_n) = p(x_1)p(x_2|x_1)p(x_3|x_2, x_1)p(x_4|x_3, x_2, x_1)\dots p(x_n|x_{n-1}, \dots, x_1)$$

Simply increasing the order of the Markov Chain or Bayesian network to achieve this would quickly lead to overfitting. Instead, we want our model to automatically figure out which longer-term dependencies matter and which don't.

This is where Long Short-Term Memory (LSTM) recurrent neural networks come in. A great in-depth explanation of how LSTM works is available here. In short, LSTMs allow the neural network to automatically learn which long-term patterns are important to remember, and which are ok to be forgotten quickly.

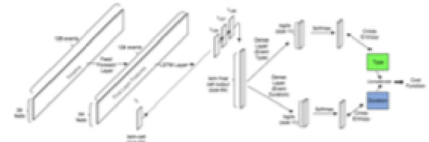
We trained an LSTM network to learn to predict both the next event type, and the duration of the current event. This allows us to determine what the person is going to do next, and when this is likely to happen. By training a single model based on several thousands of real-world user timelines, the network learns to encode general human behavior, thereby enforcing temporal consistency at prediction time.

Moreover, using a beam-search approach, popular in NLP related literature, we are able to predict complete future timelines instead of only the next event. By retaining only the top-k most likely beams, we end up with several prediction hypotheses:



MODEL ARCHITECTURE AND TRAINING

The following figure illustrates our model architecture:



The input of the network consists of 128 previous events, each of which is represented by a feature vector that encodes the event type (e.g. 'shop'), the day of week and time of day, and the duration of the event. A simplified example of such a feature vector is illustrated below:

This feature vector is fed into a dense input layer which basically learns to encode this information into an embedding that can be fed into the LSTM layer. The LSTM layer itself serves as an encoder: After feeding the entire sequence of events through the layer one by one, the final LSTM state encodes both the user's general behavior and its most recent events.

The final LSTM state is then fed into a fully connected output layer which transforms the timeline encoding into a representation that is useful for actual classification.

Two different classifiers are trained simultaneously and end-to-end:

1. Event type classifier (green box): What will the user be doing next?
2. Event duration classifier (blue box): When will the next event start?

The event type softmax outputs 11 probabilities corresponding to the supported output types:

The event duration classifier outputs 11 probabilities corresponding to a bucketed representation of duration. The predicted duration is the expected duration of the current event and hence the start time of the next event, while the predicted event type is the expected event type of the next event.

Event durations are bucketed on a log-scale, allowing a fine-grained resolution for short events while a coarser granularity is used for longer events.

Posing the duration estimation as a classification problem instead of a regression problem greatly simplifies the global loss function that combines the duration estimation loss and the event type loss. Cross-entropy is used as the cost for both classification problems, and the final loss function is defined as the sum of both cross entropies.

Finally, we perform data augmentation to increase the model's generalization capabilities by randomly offsetting event start and end timestamps while selecting mini batches, and by adding random noise to the event durations.

The whole network is trained on tens of thousands of real-life timelines from users with different age, gender, demographics and socio-economic backgrounds. This allows the network to generalize and to learn about typical human behavior.

RESULTS AND EXAMPLES

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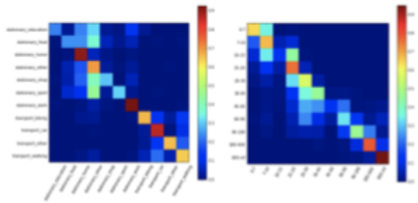


Clearly, some event types such as "Home" and "Work" are easier to predict than others, such as "shop". However, note that our ground truth itself is not labeled manually and thus contains mistakes. In fact, manual inspection of the prediction results shows cases where our venue mapping fails to identify a shop or sport location correctly, while the prediction model did correctly predict the venue type. Obviously this opens opportunities for future research, where our prediction model might also be useful in a de-noising setting to clean up venue mapping or activity detection errors that happen early on in our machine learning pipeline.

Also note that the network automatically discovered that transports and venue visits are very different types of events. For example, while "walking" is sometimes mispredicted as "car" - mostly because walking sessions before and after parking the car are usually very short and are not always picked up by our SDK - the network almost never mis-predicts walking as "shop" or "work".

The duration confusion matrix shows that longer duration, represented by larger buckets, are classified correctly more often than shorter duration. Indeed, walking sessions of up to 10 minutes have quite a large variance and are often predicted to be a few minutes shorter or longer than what is observed.

An interesting observation is that jointly training the network to learn about event types and event durations improved the overall accuracy when compared to learning only about event types or event durations individually. Given the noisy ground truth data when it comes to event types, the event duration labels seems to stabilize the learning process and acts as a regularizer.

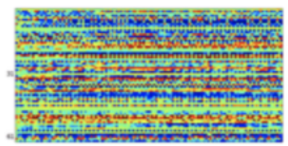
The following video illustrates some prediction results on a real-life timeline:

For better observation of the data, select FULL SCREEN. You can also adjust the speed of the video to your preference.

In the situation above, the network infers that, given the user was at home, the most likely next events are car or walking. The right-most section of the figure, containing two columns represent the different event-types (left) and the softmax-probability associated to them (right). The timeline is placed on the topmost row in the figure, and is represented as a list of 128 events, each event having a different color, as listed in the legend.

Below the timeline, are drawn the different internal state and gate values for the LSTM cells, in the form of separate panels. Each of the state and gate panels are 128X64 matrices in the above image, where 128 is the length of the timeline, and 64 is the size of an LSTM cell used in the model.

Now let's zoom into the LSTM States plot:



Among the 64 LSTM cell units (rows of this 128X64 matrix) we can clearly distinguish between (i) those that have learned to depend only on local input features, and (ii) those that have learned to remember and recognize temporal patterns in the sequence of inputs. For instance if we take a closer look at **row number 61** in the above matrix:

We see that the LSTM cell units simply translate from right to left, almost entirely retaining their state values. This implies that these units have only learnt the features specific to the event they are tied to and have not learnt any temporal patterns, because if they did so, their values would change as the sequence progressed in time. On the other hand, if we look at **row number 31** in the same LSTM state matrix:

As the units translate from right to left, their value keeps changing in this case and as a whole, there appears to be smooth variations across the stretch of the entire row-sequence. Two inferences are to be drawn: (i) the smooth variations in the LSTM cell units' state values show signs of coordinations between temporally consecutive cell units, i.e. cell units in a close temporal neighborhood behave similarly which intuitively appears to be an equivalent of a self-learned convolutional kernel (with subsequent max-pooling), and (ii) the only way of explaining the variations in LSTM cell unit state values here is that the units do learn temporal patterns apart from the features of the event they are tied to, and that is why they keep changing values as the sequence progresses in time. More interestingly, in the above sample, the leftmost units which are more than 100 events back in the past still keep changing their values, which implies that the network is able to learn long term dependencies spanning over 100 events in some cases (like the one above).

Whereas rows 61 and 31 are the two extreme cases (of local and temporal patterns respectively), the behavior in the other rows is definitely somewhere in between. The ability to learn long-term dependencies often allows the network to predict event types in cases where even human observers would have difficulty to correctly predict the correct event.
For example, we noticed cases where the network knew that a user was going to sport at a time at which the user normally does not sport, simply by recognizing the sequence of events and event durations that led up to the current moment. By examining the user's general past behavior, and by closely monitoring the sequence of events and event durations that led up to the current moment, the network is able to predict the unexpected. Clearly this kind of behavior can not be accomplished by simple Bayesian approaches modeling $p(event_t|event_{t-1}, time, day)$

PREDICTING FAR AHEAD

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(e.g. "commute to work" or "shopping routine"), we need to be able to predict several events ahead.

Moreover, we want to predict several hypothesis timelines, such that we can quickly adapt our future predictions if the next event turns out to be different from what we predicted.

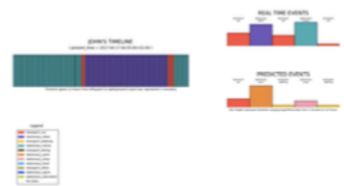
To accomplish this, we use a beam-search approach, which traverses a search tree of prediction hypotheses and retains only those sequences that maximize the total log likelihood:

Below is a video that illustrates the beam search based predictions for a sample user:

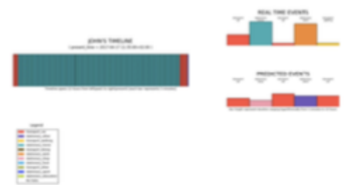
For better observation of the data, select FULL SCREEN. You can also adjust the speed of the video to your preference.

The actual event that happened after Home, was Car, which is among the predictions suggested (i.e. Car or Walking). Given that the next event was Car, the model now predicts that the next event is going to be Stationary_Other, which as shown below, happens to be a correct prediction.

The above scenario uses real user data and the predictions are made over the Easter-weekend time-period. Weekends are usually difficult to predict, but it is evident that in general, the model is close enough at predicting the sequence of future events. It has inherently learnt the meaningful transitions between stationary events and transport events. And has also learnt the duration that a particular event type usually spans over (walking means short time, home means long, etc.). However, there is a special scenario here, which is the Easter Monday (a holiday in Belgium). If we notice at the instance shown below, the model on Sunday night thinks that the next day is a work day, when it actually is not.



It makes sense for the model to think so, because after all, an Easter Monday happens rarely enough to be considered an anomaly. However, the good part is that on the next day, as soon as the user goes to a place which is not his/her workplace, the model immediately adapts itself to predict further events in the future as if it was not a typical working day, but a weekend-ish day with shopping and other events. This displays the dynamic adaptability that our new prediction model possesses.



Apart from the above weekend example, below is a video showing predictions for a weekday routine, where the predictions look more correct (as expected, because weekdays are more predictable on average):

For better observation of the data, select FULL SCREEN. You can also adjust the speed of the video to your preference.

CONCLUSION

Based on our state-of-the-art machine learning and sensor fusion pipelines part 1 and part 2 Sentiance offers the most accurate event detection and contextualization capabilities on the market today.

Our deep learning based prediction pipeline adds extremely precise predictions to our solution, allowing our customers to engage with their users at the right time. Moreover, being able to predict several events ahead, allows us to model intent, thereby explaining why a user will be performing a specific action.

Do you want to enrich your customer experience and deliver personalized and context-aware engagement? Reach out to us.

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sentiance
From mobile data to smart life

VOLTIJDSE ARBEIDSOVEREENKOMST
VOOR BEDIENDEN VOOR ONBEPAALDE TIJD

Ashish Ranjan Jha

sentiance
From mobile data to smart life

Ashish Ranjan Jha

sentiance
From mobile data to smart life

Artikel 8

Artikel 13

Opgemaakt in twee originelen te Antwerpen

op 23/03/2016

Gelezen en goedgekeurd
(Gelezen en goedgekeurd)

De bediende

Ashish Ranjan Jha
*(handtekening *)*

Ashish Ranjan Jha
(naam)

CEO

FULL-TIME EMPLOYMENT CONTRACT
FOR UNDETERMINED TERM

BETWEEN:

Sentiance NV,

Hereinafter referred to as the "employer";

AND:

Ashish Jha

Hereinafter referred to as the "employee";

THE FOLLOWING HAS BEEN AGREED UPON:

Article 1

Article 9

....
(read and approved)

Employee

....
(signature)

....
(name)

DataShines
Where Data Science Shines

Blog About

Text To Image Generation Using Generative Adversarial Networks

Generative Adversarial Networks (GANs) are a popular variant of the generative class of neural network models. The fundamental principle behind a GAN model is a discriminator and a generator model working against each other (roughly speaking) thereby achieving the ultimate goal of fine-tuning the generator to facilitate generating meaningful, non-random data.

READ MORE

Human Pose Estimation Using Deep Learning

This was my first ever deep learning project and so I am happy to share what I did there with some key insights. This is from 2014/15, when tensorflow didn't even exist. Theano did, though.

READ MORE

Deep learning for long-term predictions

Sentiance uses machine learning to extract intelligence from smartphone sensor data such as accelerometer, gyroscope and location. This intelligence comes in the forms of sensor based activity detection, map matching, driving behavior, venue mapping and more.

READ MORE

Using Neural Nets for Audio Events Detection

Audio events detection as the name suggests is the task of detecting 1 or more audio events in an audio clip of a certain duration. In this post, we limit our discussion to 1 audio event in an audio clip of a fixed duation of 4 seconds.

READ MORE

Eye Tracking Measures for Anthropomorphism in HumanRobot Interaction

Anthropomorphism is our tendency to attribute human like characteristics to non-humans animate or inanimate. In this study, I had the task of analysing anthropomorphism via eye-gaze patterns as a human observed (i) human performing a task, vs, (ii) robot performing the same task.

READ MORE

Analysis and Subsequent Optimization of a Microcontroller Program

Having received the prestigious DAAD Scholarship, I got to do my Undergrad Summer Internship at OVGU, Magdeburg, Germany, on this interesting topic: *Analysis and Subsequent Optimization of a Microcontroller Program for precise control of Pneumatic Valves used for Hot Wire Chemical Vapor Deposition* I managed to modify an already existing program to increase the precision of the valves were actuated based on the microcontroller board multiplexed outputs.

READ MORE

Fundamentals of Finite Difference Methods

I had the opportunity to present on this topic at the 10th Indo German Winter Academy, 2011. Discrete mathematics has been one of my favorite areas of study in Mathematics. I was glad to be able to apply what I learned here later while studying Computer Graphics at EPFL.

READ MORE

Gmail Ashish Ranjan Jha <arj7192@gmail.com>

Your MBA Application Decision

6 messages

Smartly Admissions <admissions@smart.ly> Wed, Mar 13, 2019 at 10:35 AM
To: arj7192@gmail.com

SMARTLY

Hi Ashish,

Congratulations! On behalf of all of us at Smartly, I'm so pleased to notify you of your acceptance into the **Smartly MBA - March 2019** class. We're delighted to have you join this outstanding group on a journey of learning and career advancement.

The week before classes begin you'll receive additional information from us to prepare you for the start of classes on **Monday, March 25**. If you have any questions before then, please let us know. Feel free to let your friends know the great news!

I was accepted into Smartly's MBA program! 🚀 #Accepted #SmartlyMBA #DegreeBound : smart.ly

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Congratulations again!

Sincerely,
Matt Schenck
VP of Smartly Admissions

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2019 – Finalists & Winners

THE EDTECH AWARDS 2019 | **Lighting the Way**

A very big congratulations to the finalists of The EdTech Awards 2019!

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On the cusp of this new age in learning and education, technology is the vehicle—but who are the engineers, the strategists, the pilots? Who are the dreamers that dream, the builders, inventors, and architects of our future?

From one monolithic milestone to the next, civilizations may come and go. As we build *this* one—qualifying it through careful correction, ensuring progress, making mastery and advancement real—we awaken to our full potential.

We're it, the chance is *ours*—and for learners, leaders, and earnest students of the future—the future is bright.

Here's to those with their shoulders to the wheel.

*(Finalists listed below – winners are marked with *)*

FINALISTS & WINNERS BADGES AND PRESS RELEASE AVAILABLE HERE

NOTE: Beautiful TROPHIES are available for purchase for WINNERS as well as FINALISTS.

1 :: THE EDTECH COOL TOOL AWARDS

FINALISTS:

higher education solution

APL nextED
Blackbullion
Campus Management-CampusNexus Platform
Gradescope
iClicker
Jenzabar One
Middle Atlantic Products L7 Series Lectern
Smartly*
Spring Theory
TurningPoint web

NOTE:

*(Finalists listed above – winners are marked with *)*

Bitbucket

- Your work
- Repositories
- Projects
- Pull requests
- Issues
- Snippets

Repositories

Filter by: Owner Project Watching Find repositories

Repository	Project	Owner	Last updated	Builds
aarctern-inter_com...	Untitled project	AARCTERN-ML	2018-04-12	
aarctern-inter_com...	Untitled project	AARCTERN-ML	2018-04-12	
aarctern-web		Ankit Agarwal	2015-12-18	
api	Untitled project	AARCTERN-ML	2018-04-12	
bitflip_pilot	bitflip	bitwick	2017-12-08	
bitflip_pilot_chrome	bitflip	bitwick	2018-04-12	
bodhi_ml	bodhi	nlarjak	2018-04-12	
flask		hackDaemon2	2018-04-12	
IAmHereOriginal	bodhi	nlarjak	2018-04-12	
ios_app	v2i	ashishsolo	2019-01-13	
semantic_search_m...	semantic_search	datashines	2018-12-13	
speech_to_text_to_i...	v2i	ashishsolo	2019-01-13	
testService	Untitled project	AARCTERN-ML	2017-12-08	
text_to_image_flowers	v2i	ashishsolo	2019-01-13	

Bitbucket

- Your work
- Repositories
- Projects
- Pull requests
- Issues
- Snippets

Your work

Repositories	Description	Builds	Last updat
speech_to_text_to_image v2i / ashishsolo - 2019-01-13			
text_to_image_flowers v2i / ashishsolo - 2019-01-13			
ios_app v2i / ashishsolo - 2019-01-13			
semantic_search_main semantic_search / datashines - 2018-12...	Webapp with semantic search on a document funtionality		
flask hackDaemon2 - 2018-04-12			
bodhi_ml bodhi / nlarjak - 2018-04-12	1. Repo has internal apis to take data from app, store it in db. 2. ML codes to process data 3. Web apis then to...		
bitflip_pilot_chrome bitflip / bitwick - 2018-04-12			
api Untitled project / AARCTERN-ML - 2018...	Handling API calls.		
aarctern-inter_commute-cars Untitled project / AARCTERN-ML - 2018...	Data extraction, pre-processing and machine learning tool-kits for on-road commute between cities.		
aarctern-inter_commute-buses Untitled project / AARCTERN-ML - 2018...	Repository for bus websites		

View all repositories

Set status

arj7192

Edit

Overview | **Repositories 11** | Projects 0 | Stars 0 | Followers 1 | Following 0

Find a repository... | Type: All | Language: All | New

better_bot
bot to make automated sports centre booking using python selenium

Jupyter Notebook · Updated 16 days ago

Star

Recipe-Allocator
Recipe Allocator Algorithm

Jupyter Notebook · Updated on 25 Mar

Star

epoc
Empirical proof-of-concepts

Jupyter Notebook · Updated on 2 Mar

Star

datashines.github.io
Forked from datashines/datashines.github.io

Personal blogging via github io -- Ashish Jha

CSS · 1 · MIT License · Updated on 28 Feb

Star

digit-recognition-service
A digit recognition service that predicts the label of an uploaded digit image

Python · Other · Updated on 31 Jul 2017

Star

learn-keras
learn keras

Jupyter Notebook · Updated on 2 Jul 2017

Star

resume
Forked from udacity/frontend-nanodegree-resume

JavaScript · 24,774 · Updated on 2 Mar 2016

Star

master-thesis
TeX · Updated on 11 Jan 2016

Star

HumanPose3D
Human Pose estimation using Deep Learning from Human36M dataset

Python · 1 · 1 · Updated on 19 Jun 2015

Star

test
test

C · Updated on 1 Apr 2015

Star

anthropomorphism-eyetracking
Forked from chili-epfl/anthropomorphism-eyetracking

The analysis scripts for the Eyetracking + Anthropomorphism study

1 · MIT License · Updated on 8 Jan 2015

Star

datashines / **datashines.github.io**

Personal blogging via github io -- Ashish Jha https://datashines.github.io/ Edit

Manage topics

122 commits | 1 branch | 0 releases | 1 environment | 1 contributor | MIT

Branch: master | New pull request | Create new file | Upload files | Find File | Clone or download

datashines Update 2019-02-28-Text-To-Image-Using-GANs.md — Latest commit c0b2354 on 3 Mar

_includes	adding bitbucket link	4 months ago
_layouts	12-May,2018: (i) Add jekyll now stuff	a year ago
_posts	Update 2019-02-28-Text-To-Image-Using-GANs.md	2 months ago
_sass	adding bitbucket icon	4 months ago
data	Add files via upload	2 months ago
images	Adding temp logo image 3	11 months ago
.DS_Store	Adding temp logo image	11 months ago
.gitignore	adding gitignore	11 months ago
404.md	12-May,2018: (i) Add jekyll now stuff	a year ago
CNAME	12-May,2018: (i) Add jekyll now stuff	a year ago
LICENSE	12-May,2018: (i) Add jekyll now stuff	a year ago
README.md	Update README.md	a year ago
_config.yml	changing bitbucket endpoint to teams page	4 months ago
about.md	about change	4 months ago
index.html	12-May,2018: (i) Add jekyll now stuff	a year ago
style.scss	12-May,2018: (i) Add jekyll now stuff	a year ago

README.md

Data Shines

Data Shines is a personal endeavor of a data scientist to share basic to advanced insights on various aspects of data science / machine learning / artificial intelligence / python.

Credits

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