## Dat Tran

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# Summary

Experienced technology and business leader with a strong focus on smart (data) products. Passion for building up high performance, cross-functional and self-managed balanced teams (from scratch). Open-source and machine learning evangelist with global reach. Currently I'm heading Axel Springer AI which is the artificial intelligence unit of Axel Springer SE, one of the largest digital publishing house in Europe. My interests are diverse from traditional machine learning, deep learning, AI in general to computer vision. I have a lot of experiences from devising realistic data-driven use cases to the actual implementation into a real product; more than capable of distinguishing hype, buzzwords and wannabes from substance. Big fan of agile practices, lean product development and open-source technologies. I mainly use Python and the PyData stack for anything that I do but I also know a bit about Apache Spark, TensorFlow, R, SQL and many other stuff. I also regularly blog about my work on Medium and also speak at conferences such as PyData.

# Experience

## Axel Springer Ideas Engineering GmbH

Berlin, GER

Head of AI at Axel Springer AI

06/2019 - present

- Establish and lead Axel Springer AI, the artificial intelligence unit of Axel Springer SE, one of the largest digital publishing house in Europe
- My team's research focus was mainly on Voice (TTS & STT) and NLP topics. We also open-sourced several projects:
  - \* ForwardTacotron (Generating speech in a single forward pass without any attention!) https://github.com/as-ideas/ForwardTacotron
  - \* headliner (Easy training and deployment of seq2seq models.) https://as-ideas.github.io/headliner/
- Driving Axel Springer's change into a real "tech" company:
  - \* Established and managed the Axel Springer techblog
  - \* Co-organized the Axel Springer TechCon 2019 which was the first installment of a group-wide conference within the Axel Springer group
  - \* I'm the "face" of the new employer branding for technology within the Axel Springer group
  - \* Represented Axel Springer internally and externally at several renowned conferences, podcasts, magazines etc.
  - \* Established a more open-source and research-driven mindset
  - \* Evangelizer for Tech & Product first

## Humydo - Pham & Tran GbR

Berlin, GER

- Humydo provides high-quality clothing for an affordable price

#### idealo internet GmbH

Berlin, GER

Head of Data Products at idealo

10/2017 - 05/2019

- Co-head of the data team (25+ people) with a special focus on building up the data science/data engineering team (built up from scratch - hired 6 people within 9 months)
- Led the data science team directly where my team's research focus is on:
  - \* Interpretability of deep learning models (mainly computer vision problems)
  - \* Efficient deployment of machine learning models
  - \* AutoML
  - \* Data collection process (in-house labeling and external mechanical turk approaches)
- Selected projects of my team:
  - \* We used deep learning to automatically rank millions of hotel images (300+ million) according to their aesthetic and technical quality which helped to improve the listing for small and mid-sized hotels
  - \* We trained CNNs to automatically generate nice looking product galleries which reduced the workflow time of our content team by 75%
  - \* We built a tree-based classifer to predict non-purchases of customers which helped our CRM team to target those customers three days ahead before we receive the actual sales data by the shops
- Provided technical and scientific guidance to senior team members and also our machine learning trainees
- Created the machine learning powered roadmap for idealo for both product and research
- Turned the data team from a pure cost center into a profit center e.g. monetarizing our data for CRM campaigns which resulted in EUR 1 million additional revenue
- Set up a regular knowledge sharing session internally and externally across the Axel Springer companies including Bonial, Upday etc.
- Established the open-source strategy under the idealoTech umbrella and executed it e.g. created and managed the idealoTech blog (https://medium.com/idealo-tech-blog), idealo's Github landing page and also the @idealoTech channel on twitter
- My team open-sourced several projects with high business impact:
  - \* image-quality-assessment (Convolutional Neural Networks to predict the aesthetic and technical quality of images.) - https://github.com/idealo/image-quality-assessment
  - \* image-super-resolution (Keras implementation of the Residual Dense Network for super scaling images.) - https://github.com/idealo/image-super-resolution

Springboard Remote, USA

Mentor for the AI/ML career track, https://www.springboard.com/

01/2019 - present

**Data Festival** 

Munich, GER

Member of the program committee, https://www.datafestival.de/

05/2018 - present

Thesis Advisor Co-supervised thesis Berlin, GER 2018

- Hong Ngoc Truong. Bachelor Thesis, co-supervisor with Prof. Dr. Manfred-Erich

Jäger-Ambrozewicz, HTW Berlin - University of Applied Sciences, Germany. Title: "Machine Learning: Tree-Based Algorithms"

Pivotal Inc.

Berlin, GER

Senior Data Scientist at Pivotal Labs

10/2015 - 10/2017

- Leading and managing the Data Science practice for Pivotal Labs Berlin
- Created machine learning models and put them into production for various clients
- Supported pre-sales activities by creating demos/proof of concepts and blog articles
- Scoped data science projects including proposal writing, resource estimations and budget allocation
- Provided data science thought leadership, for example, helped to establish the smart apps idea and XP practices into data science like TDD (http://tinyurl.com/gme62kr), pair programming and CI/CD
- Established an API First culture within the company: http://tinyurl.com/z9kv5ae
- Gave talks at PyData Berlin, London, San Francisco 2016 and CF Summit Europe 2016
- Data Scientist from 10/2015 06/2016

#### Accenture GmbH

Berlin, GER

Data Scientist at Accenture Digital

08/2014 - 09/2015

- Built up internal capabilities and showcases in the area of network analytics, operations analytics, text analytics, customer analytics and data visualizations
- Worked on setting up an analytics center of excellence for a large German airline
- Led and co-ordinated workshops at customers to demonstrate the value of data science
- Acted as point of contact for internal requests of various advanced analytics topics such as machine learning and optimization
- Supported pre-sales activities by creating proof of concepts for clients in telecommunication, aviation and automotive
- Helped to organize internal and external events such as TEDxRheinMainSalon Datanauts and LMU DataCrunch

#### Hotel Diana Berlin

Schönwalde-Glien, GER

Family Business, http://www.hotel-diana-berlin.com/

01/2018 - present

- Managed online marketing activities (SEO, review portals and social networks)
- Created and managed the homepage

#### Sy Restaurant

Berlin, GER

Family Business, http://www.sy-restaurant.de/

12/2006 - present

- Supported the formation of a new branch in Berlin Spandau
- Developed and managed the service
- Managed online marketing activities (SEO, review portals and social networks)

## Education

### **Humboldt University of Berlin**

Berlin, GER

Master of Science in Business Administration, Grade 1.9

10/2011 - 12/2013

- Field of Specializations: Operations Research and Econometrics
- Research Interests: Graph Theory, Queuing Theory and Dynamic Programming
- Master Thesis: Optimal Design for an Online Dutch Auction Selling Airline Tickets Advisor: Prof. Dr. Kurt Helmes, Department of Operations Research, Grade 1.7 Digital Copy: http://tinyurl.com/jsq8hwp

#### Berlin School of Economics and Law

Berlin, GER

Bachelor of Arts in Business Administration, Grade 1.5

04/2008 - 07/2011

- Field of Specializations: Banking & Finance and Accounting

- Bachelor Thesis: Best of N Concept - A Comparison of Dynamic Asset Allocation Strategies Advisor: Prof. Dr. Thomas Wolke, Department of Finance, Grade 1.7 Digital Copy: http://tinyurl.com/184jskr

## Study Abroad at the University of Sydney

Sydney, AUS

Exchange Program

03/2010 - 08/2010

- Courses taken in Portfolio Management, International Financial Management, International Business Strategy, Calculus I and Linear Algebra I

# Friedrich Anton von Heinitz Gymnasium

Rüdersdorf, GER

Abitur, AP English and Chemistry, Grade 2.5

07/2007

# **Selected Online Publications**

Deep Learning for Classifying Hotel Aesthetics Photos NVIDIA Developer Blog https://tinyurl.com/yadn9wqk - Jointly with Christopher Lennan 10/2018

What is Minimum Viable (Data) Product?

Medium - idealo Tech

https://tinyurl.com/ybqs55bt

06/2018

My two cents on what makes a good data scientist nowadays? http://tinyurl.com/y9grlbrg

Medium - Towards DS 07/2017

8 "Simple" Guidelines For Data Projects

Medium - Built to Adapt

http://tinyurl.com/m8nhv2o

04/2017

Continuous Integration for Data Science

Pivotal Engineering Journal

http://tinyurl.com/j6ghfht

02/2017

Delivery in a Land with No Postcodes

Medium - Actionable Data

http://tinyurl.com/gqat3bo - Jointly with Megha Agarwal

11/2016

How Automakers And The IoT Are Colliding To Save Lives http://tinyurl.com/jjcvaxs

Pivotal Blog 10/2016

Test-Driven Development for Data Science

Pivotal Engineering Journal

http://tinyurl.com/gme62kr - Jointly with Megha Agarwal

09/2016

**API First for Data Science** 

Pivotal Engineering Journal

http://tinyurl.com/z9kv5ae - Jointly with Alicia Bozyk

07/2016

# Selected Talks

Berlin, GER

Future of AI Europe 2019
Keynote Talk: The Future of Media is AI

12/2019

WeAreDevelopers Congress Vienna 2019 - https://tinyurl.com/uzy7z8c Vienna, AUS Deep Learning for Aesthetics: Training a Machine to See What's Beautiful 11/2019

#### Digitale Leute Summit 2019

Cologne, GER

Fireside Chat about Lean AI

11/2019

## Infoshare AI & Data Science

Warsaw, POL

Deep Learning for Aesthetics: Training a Machine to See What's Beautiful

11/2019

## EGG Germany 2019 Keynote Talk: From ML Research to Production - the Autobahn Way!

Stuttgart, GER

Frankfurt, GER

**Future of Trust Summit** 

11/2019

# Artificial Intelligence - From Science-Fiction to Real Use Cases

11/2019

### DataHack Summit 2019

Bangalore, INDIA

Deep Learning for Aesthetics: Training a Machine to See What's Beautiful

11/2019

| • AI Show Madrid  Demystifying the Buzz in Machine Learning! (This Time for Real)  | Madrid, ESP 10/2019        |  |  |
|--|----------------------------|--|--|
| • Bertelsmann Data Exchange Week  Keynote Talk: ML @ Axel Springer   | Bielefeld, GER $10/2019$   |  |  |
| $  \bullet                                  $  | Berlin, GER 09/2019        |  |  |
| I.E.C.T. Summer School 2019 - https://tinyurl.com/sfl58na  **Reynote Talk and Panelist*  | Innsbruck, AUS $08/2019$   |  |  |
| ODSC India 2019 - https://tinyurl.com/rrtfdo7  Image ATM - Image Classification for Everyone   | Bangalore, INDIA $08/2019$ |  |  |
| Chief Data Officer Exchange Europe 2019 - https://tinyurl.com/y3c<br>Keynote Talk: Demystifying the Buzz in Machine Learning! (This Time for Ex- | •                          |  |  |
| GCAAI 2nd Annual Meeting 2019 - https://tinyurl.com/y3oqk7y8  **Axel Springer AI - the past, present and future*                                 | Berlin, GER 06/2019        |  |  |
| • DataHack Radio (Analytics Vidhya) - https://tinyurl.com/y4rf5akx<br>Exploring Computer Vision and Data Engineering with Dat Tran               | Remote, INDIA $04/2019$    |  |  |
| • hub.berlin 2019 / Big-Data.AI Summit 2019 Automate the Boring Stuff with Machine Learning  | Berlin, GER 04/2019        |  |  |
| code.talks commerce 2019 - https://tinyurl.com/y4fvkjg8  **AI Use Cases @ idealo   | Berlin, GER 04/2019        |  |  |
|  | Munich, GER 03/2019        |  |  |
| Data Natives 2018 - https://tinyurl.com/y8mgvpsv  Demystifying the Buzz in Machine Learning! (This Time for Real)                                | Berlin, GER <i>11/2018</i> |  |  |
| • Axel Springer CTO Workshop 2018 • AI Use Cases @ idealo  | Berlin, GER <i>11/2018</i> |  |  |
| Süddeutscher Verlag UB Fachinformation  Keynote Talk: Smart Apps - The New Normal  | Munich, GER <i>07/2018</i> |  |  |
| Chief Data Officer Exchange Europe 2018  Fireside Chat - Creating Profitable Data Opportunities  | Berlin, GER 06/2018        |  |  |
| • Data Festival 2018 - https://tinyurl.com/y7jrneej What is the big in (Big) data? And how lean can your data be                                 | Munich, GER 04/2018        |  |  |
| Tech Open Air / Panel Discussion - http://tinyurl.com/y8vngang New Age of Analytics for Digital Products?  | Berlin, GER 07/2017        |  |  |
| Pivotal Big Data Roadshow - http://tinyurl.com/mnsgcce Smart data-driven apps  | Seoul, KOR <i>04/2017</i>  |  |  |
| Cloud Foundry Europe Summit 2016 - https://youtu.be/z7Amakqpgd Saving human lives with the IoT   | Q Frankfurt, GER 09/2016   |  |  |
| • PyData SF 2016 - https://youtu.be/HyjZFYDubf8  How you really get your data science models into production - the cool way!                     | San Francisco, USA 08/2016 |  |  |
| PyData Berlin 2016 - https://youtu.be/ZojIGRS3HLY PySpark in Practice - Joint talk with Ronert Obst  | Berlin, GER 05/2016        |  |  |
| PyData London 2016 - https://youtu.be/SETpipUZ_Lc PySpark in Practice - Joint talk with Ronert Obst  | London, UK 05/2016         |  |  |

# Selected Open-Source Projects \_

| • | <pre>imagededup - https://tinyurl.com/yyaoe587 Finding duplicate images made easy!</pre>                                    | ★ 3000+        | ¥ 200+        |
|---|---|----------------|---------------|
| • | Object Detector App - http://tinyurl.com/yyf7tmu9 Real-Time Object Recognition App with Tensorflow and OpenCV               | ★ 1100+        | <b>¥</b> 600+ |
| • | face2face Demo - http://tinyurl.com/y3u6u4cs pix2pix demo that learns from facial landmarks and translates this into a face | <b>★</b> 1100+ | <b>¥</b> 350+ |
| • | Raccoon Dataset - http://tinyurl.com/y29v4uhk Trained a Raccoon detector with TensorFlow's Object Detection API             | ★ 1000+        | <b>¥</b> 700+ |
| • | <pre>jupyter2slides - http://tinyurl.com/y4qfenxv Cloud Native Presentation Slides with Jupyter Notebook + Reveal.js</pre>  | <b>★</b> 700+  | <b>¥</b> 150+ |

# Skills & Interests

#### Computer

- Very good knowledge in Python including the PyData stack: scikit-learn, pandas, matplotlib, XGBoost etc.
- Working experiences with deep learning frameworks such as TensorFlow and PyTorch
- Practical experiences in solving big data problems using Apache Spark (PySpark) and MPP databases
- Worked under a Test-Driven and CI/CD environment and constantly embraced Pair Programming
- Experiences with Microservices, PaaS and Cloud Computing (Cloud Foundry, AWS, GCP)
- Good knowledge in SQL, Git, VIM, LATEX, UNIX
- Experiences with HTML, CSS and JS (mainly React)

#### Industry

- Industry experiences in Media, Telecommunications (Postpaid, LTE and VoIP), Aviation (Customer Segmentation), Automotive (Spare parts management, Aquaplaning prediction), Banking, Logistics and E-Commerce

#### • Languages

- German (native), English (fluent), Vietnamese (beginner)

#### • Others

- Taekwondo, Soccer (11 years Landesliga), Traveling, Literature, Cooking, History, Strategy
- McKinsey Masters 2013 Regional Winner and second in the Nationals
- e-fellows.net Scholarship

## References

#### Dr. Michael Natusch

Global Head of Artificial Intelligence - Prudential plc Managing Director - Accenture Analytics m.natusch@me.com

#### Holger Mai

holger.mai@accenture.com