Jonathan Dekhtiar

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Objective : Senior Research Engineer - Deep Learning Framework Optimization.

ACADEMIC

PHD IN DEEP LEARNING AND COMPUTER VISION
University of Technology of Compiegne
Oct. 2015 – Oct. 2019 | Compiegne, France

COMPUTER SCIENCE AND DATA SCIENCE ENGINEER
University of Technology of Compiegne
September 2010 – July 2015 | Compiègne, France

ERASMUS IN COMPUTER SCIENCE, DATA MINING
Technische Universität Hamburg-Harburg
April 2014 – July 2014 | Hamburg, Germany

ERASMUS IN COMPUTER SCIENCE, ALGORITHMIC
Technische Universität Wien
February 2012 – June 2012 | Vienna, Austria

EXPERIENCES

NVIDIA | Senior Deep Learning Framework Engineer
October 2018 – Present | Santa Clara, CA - USA

- Technical lead role in charge of the integration of TensorFlow and NVIDIA TensorRT: TF-TRT. Planning features, dealing with customer issues and bugs, publicly presenting and advocating our solution in various events (GTC, Google TensorFlow World, etc.)
- Architectured a python packaging process for deep learning frameworks and libraries including CUDAx compenents. Now used by more than 25 independant projects internally.
- Advisor role for Deep Learning Profiler solution
- Performance analysis and optimization of various computer vision deep learning models implemented with Tensorflow.
- Optimization of the data loading pipeline for TensorFlow. Namely analyzing and identifying bottleneck, proposing technical solutions to address the issue and fixing them. I namely worked on device prefetching to overlap Host to Device communication.

UTC | PhD in Deep Learning and Computer Vision
October 2015 – September 2018 | Compiègne, France

- Study on Convolutional Networks using Tensorflow and Caffe. Goal: classify and segment industrial mechanical parts and assemblies.
- Study on Adversarial Auto-Encoder and Generative Networks, and aiming to detect manufacturing defects (e.g impacts and scratches) on manufactured products on the production line.

PUBLICATIONS

J. Dekhtiar, A. Durupt, M. Bricogne, B. Eynard, H. Rowson, and D. Kiritsis. Deep learning for big data applications in CAD and PLM – research review, opportunities and case study. *Computers in Industry*, 100:227 – 243, 2018. doi: https://doi.org/10.1016/j.compind.2018.04.005.

ACTIVITIES & LEISURE TIME

2017	Aviation	Private Pilot in General Aviation
2003	Scuba Diving	Diving everywhere I was lucky to travel

OPEN SOURCE - RESEARCH

• **Horovod** - Linux Foundation AI & Data Member of the Technical Steering Committee
github.com/horovod/horovod

• **TensorLayer:** Core Team Member. TensorLayer offer a high-level API for Tensorflow targeting researchers & engineers
github.com/tensorlayer/tensorlayer (6.5k ★)

• **ICML 2019 Workshop Organizer**
Joint Workshop on On-Device Machine Learning & Compact Deep Neural Network Representations (ODML-CDNNR)
https://tinyurl.com/icml19-CDNNR

• **CVPR 2020 Workshop Organizer**
Workshop on Efficient Deep Learning for Computer Vision
https://workshop-edlcv.github.io/

COMMUNITY IMPACT

• **Technical Blog - official TensorFlow Blog**
Leveraging TensorFlow-TensorRT integration for Low latency Inference
https://tinyurl.com/leverage-tftrt

• **Born2Data.com** - Personal blog
Software Engineering, Data Science, Machine/Deep Learning

COMPETENCES

PROGRAMMING

• Python • C++ • Tensorflow • Docker

• Bash • Gitlab-CI • Profilers

Familiar with:

• PyTorch • MxNet • NVIDIA DALI

LANGUAGES

• **English** : Fluent (Written / Read / Spoken)

• **French** : Native Speaker

• **German** : Correct (Written / Read / Spoken)

LINKS

• Website: **JonathanDekhtiar.eu**
• Github: **DEKHTIARJonathan**
• LinkedIn: **Jonathan Dekhtiar**
• Twitter: **@Born2Data**
• Technical Blog: **born2data.com**
• Google Scholar: **Jonathan Dekhtiar**