Michael Ebenstein

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Education

MSc Electrical and Computer Engineering, The University of Texas at Austin (UT)
Austin, USA, 08.2022 - present

Focus on Machine Learning and Graphics Hardware

Relevant modules: Hardware Architecture for ML • Comp Arch: Parallelism and Locality • VLSI I • VLSI CAD and Optimization • Solid-State Electric Devices • Nano-manufacturing Techniques

Skills: Verilog • various Cadence tools • Semiconductor fabrication: theory and lab experience • Solid-state Electronic Physics

BSc Computer Science, King's College London
London, England, 09.2019 - 06.2022
GPA: 4.0

Final year project: Fast generation of Neural Radiance Fields (NeRF) from monocular video sequences
Relevant modules: Computer Systems • Foundations of Computing • Operating Systems and Concurrency • Robotics • Compiler Design • Programming Language Paradigms • Model-driven development • AI/ML • Computer Vision

Austrian Matura, Technologisches Gewerbemuseum (TGM)
Vienna, Austria, 09.2014 - 06.2019
5 Year Trade School focused on Informatics

Relevant classes: Natural Sciences • Applied Mathematics • Electrical Engineering (2 years) • Software Engineering • Systems Engineering (4 years) • Project Management (3 years)

Skills: Java • C++ • SQL/Database design • CUDA • Python • PyTorch

Experience

Research Engineer @ VisioImpulse
London, England, 01.2020 - 09.2022

I was responsible for researching and implementing ML methods to solve client-specific tasks, and developing and maintaining the software infrastructure (cloud production services, GPU services, ...) for our custom products. Project domains:

- computer vision (semantic search, odometry, 3D scene completion, . . .)

- point-cloud processing

- NLP (semantic queries, information retrieval, condition and relationship identification, knowledge-graph generation)

Research Scientists @ Volkswagen AG (Corporate Research, Vehicle Perception Unit)
Wolfsburg, Germany, 06.2021 - 09.2021
Letter of Recommendation available

Researched monocular depth estimation methods for Autonomous Driving with ML. Achieved SOTA performance using internal multi-modal data. Organized and ran workshops on:

- Self-Supervised learning for Depth Estimation and Semantic Segmentation

- Transformer Architecture and Attention Mechanisms for vision applications

- Tutorial on GPU Cluster usage for Research Staff

Machine Learning Engineer @ Infosys Limited (Internal Research Unit)
Bangalore, India, 03.2020 - 05.2020

Developed a prototype micro-service platform that receives multiple security camera streams, applies various ML models on the frames, and visualizes the predictions in a web UI with minimal latency. It included a rule-based trigger system that reacts to the ML predictions and raises specific security alerts on the internal messaging queue system.

Junior Data-scientist @ A1 Digital

Vienna, Austria, 07.2018 - 01.2019
Letter of Recommendation available

Modeled the Austrian operating reserve energy market and optimized bidding strategies using ML, which achieved more than 80% improvement over previous models. Analyzed internal sensory data of machines used in agriculture and forestry to find correlations between components and predict failures.

Cybersecurity Intern @ Kapsch BusinessCom AG

Vienna, Austria, 07.2017 - 08.2017

I built a system for detecting network anomalies from network logs using ML. Implemented a tool for parallel artifact recovery from multiple machines after incidents. Created a visualization tool to document network incidents and present them.

Independent interests: Philosophy • Economics • Politics • Sports: Sailing, Skiing