Teddy Koker

CONTACT

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https://teddykoker.com
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EDUCATION

Worcester Polytechnic Institute, Worcester, MA

B.S., Computer Science **Sep 2016 – Dec 2019**

3.69/4.0 GPA. Senior thesis focused on applications of machine learning to social network graphs to predict future connections. Completed coursework in statistics, probability theory, machine learning, and computer architecture.

PROFESSIONAL EXPERIENCE

Harvard Medical School, Boston, MA

Machine Learning Research Associate **Dec 2019 –**

Conducting research within the Image and Data Analysis Core. Created deep learning model to detect manipulation of microscopy images. Proposed a novel approach to biomedical image retrieval.

OpenMined, https://openmined.org/

Research Engineer **Mar 2020 –**

Working within a small group researching privacy-preserving and interpretable image segmentation, with a focus on applications in healthcare.

Analog Devices Incorporated, Boston, MA

Research Engineering Intern **May 2019 – Aug 2019**

Researched and implemented a state-of-the-art inertial navigation system for use in autonomous transportation. Assisted in other projects within the Autonomous Transportation group involving radar and lidar algorithms.

Part-Time Software Engineering Intern **Sep 2017 – Apr 2018**

Created software to analyze products' data sheets and highlight potential security risks. Results were then presented at an internal conference.

Software Engineering Intern **Jun 2017 – Aug 2017**

Wrote software for internet-connected agricultural sensors that is currently deployed in farms across the world.

PUBLICATIONS

T.E. Koker, S.S. Chintapalli, S. Wang, B.A. Talbot, D. Wainstock, M. Cicconet, M.C. Walsh. On Identification and Retrieval of Near-Duplicate Biological Images: a New Dataset and Protocol. Under review.

PROJECTS

Personal Writing, https://teddykoker.com

Deep Learning for Guitar Effect Emulation, 15,000+ page views	**May 2020**
NLP from Scratch: Annotated Attention, 1,000+ page views	**Feb 2020**
Beating the Odds: Machine Learning for Horse Racing, 10,000+ page views	**Dec 2019**
Trading with Reinforcement Learning, 6,000+ page views	**Jun 2019**
Momentum Strategy from "Stocks on the Move", 12,000+ page views	**May 2019**
Simulating Historical Performance of Leveraged ETFs, 2,000+ page views	**Apr 2019**

PROGRAMMING EXPERIENCE

Languages: Python, C, C++, Rust, HTML, CSS, Javascript, Java, LaTeX
Server Technology: Docker, PostgreSQL, AWS, Jupyter Notebook, ROS
Libraries: PyTorch, Tensorflow, Flask, D3