

Xinhe Zhang

Software experience in the industry and academic research background in machine learning
Now applying to PhD in Computer Engineering

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EDUCATION

Carnegie Mellon University

Master of Science in Electrical and Computer Engineering; GPA: 4.0 / 4.0

Pittsburgh, PA

Expected Dec 2020

Courses: Intro to Deep Learning, Advanced Deep Learning, Probabilistic Graphical Models, Information Theory

Attending: Intermediate Statistics, Advanced Machine Learning

Bachelor of Science in Electrical and Computer Engineering with University and College Honors; GPA: 3.68 / 4.0

May 2018

Courses: Deep Reinforcement Learning and Control, Intro to Machine Learning, Natural Language Processing, Fundamentals of Control

ACADEMIC AND RESEARCH PROJECTS

Safety Analysis of Transcranial Electrical Stimulation - Master's Research Project

Sep 2019 - Present

- Simulated human head models in COMSOL and assessed safety measurements for transcranial electric stimulation as part of a novel human brain stimulation project.

Second Language Acquisition Modeling with Deep Learning

Sep 2019 - Dec 2019

- Adapted and analyzed various deep learning models to predict errors second language learners are likely to make in the future and beat the given baseline 85.6%.

Diabetic Retinopathy Detection with Deep Learning - Bachelor's Research Project

Sep 2017 - May 2018

- Designed and developed a machine learning pipeline that first captured the underlying domain knowledge from retina fundus images and classified processed results with 86% accuracy.

WORK EXPERIENCE

Carnegie Mellon University

Pittsburgh, PA

Research Assistant at the Robotics Institute Navigation Laboratory

Sep 2019 - Present

- Created synthetic road scene images with Carla simulator and Autodesk Maya and trained neural networks to detect objects in real images for autonomous driving tasks

Guangdong 999 Brain Hospital

Guangzhou, China

Assistant to the Dean

Jun 2019 - Aug 2019

- Processed thousands of patient data entries into a machine-readable format for research purposes.
- Evaluated million-dollar machine learning products by analyzing embedded technologies for the Vice President.

Duolingo, Inc

Pittsburgh, PA

Android Developer

Nov 2018 - May 2019

- Collaborated with the China team and communicated with vendors to establish Android push notification in China.
- Introduced UI/UX improvements to the purchasing screens on Duolingo Android and boosted membership sales.

Expai, Inc

Pittsburgh, PA

Engineer Intern

Aug 2018 - Oct 2018

- Implemented changes across the stack and collaborated with the content team to boost SEO results to Google Search's first-page ranking by editing embedded metadata as the sole engineer.

Facebook, Inc

Seattle, WA

Software Engineer Intern

May 2018 - Aug 2018

- Built a full-stack web app that queries from databases and collectively displays the results with user-specified parameters as part of the Facebook Analytics Automated Insights.

Google, Inc

Mountain View, CA; Boulder, CO

Software Engineering Intern

May 2017 - Aug 2017

- Created a web data visualization tool to compute logic relationships among datasets for 150 monthly professional users.
- Improved filtering methods and data animation by manipulating D3.js, solving the pain point for 100 daily professional users.

Engineering Practicum Intern

May 2016 - Aug 2016

- Deployed a C++ backend server that retrieves data from a large, spatially indexed table for visualizing geospatial data.
- Researched and crafted an interactive web display of 3d geospatial data with WebGL and Google Maps API.

LEADERSHIP

Computer Science and Machine Learning Teaching Assistant, Carnegie Mellon University

May 2015 - May 2018; Aug 2019 - Present

Co-Founder, Talent Pool (Startup)

Oct 2017 - May 2019

Corresponding Secretary and Elected Member, IEEE-Eta Kappa Nu Honor Society Sigma Chapter

May 2017 - Aug 2018

Co-President and Panel Director, CMU Innovation and Entrepreneurship Association

Feb 2017 - Aug 2018

College Reading and Learning Association Certified Level 2: Advanced Tutor, Carnegie Mellon University

Feb 2015 - May 2018

SKILLS

Languages: Python, Javascript, Kotlin, C/C++, SQL, \LaTeX

Tools: PyTorch, TensorFlow, Keras, Detectron, React, Redux, Express, AWS, COMSOL, Microsoft Office