Xinhe Zhang

Software experience in the industry and academic research background in machine learning
Now seeking machine learning related engineering opportunities

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EDUCATION

Carnegie Mellon University Pittsburgh, PA

M.S. in Electrical and Computer Engineering; GPA: 4.0/4.0 *Expected Dec 2020*
Courses: *Intro to Deep Learning, Advanced Deep Learning, Probabilistic Graphical Models, Information Theory*
Planned: *Intermediate Statistics, Advanced Machine Learning, Machine Learning with Large Datasets*

B.S. 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 - Current*
- Built human head models to assess 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*
- Designed, implemented and analyzed various deep learning models to predict the errors that second language acquisition 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 then performed the grading classification task with 86% accuracy.

WORK EXPERIENCE

Carnegie Mellon University Pittsburgh, PA
Research Assistant at the Robotics Institute Navigation Laboratory *Sep 2019 - Current*
- 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 with 100% accuracy for the object in interest.

Guangdong 999 Brain Hospital Guangdong, China
Assistant to the Dean *Jun 2019 - Aug 2019*
- Processed thousands of patient data entries into machine-readable format for research purposes.
- Assisted the Vice President to evaluate million-dollar machine learning product by analyzing the embedded technology.

Duolingo, Inc Pittsburgh, PA
Android Developer *Nov 2018 - May 2019*
- Collaborated with the China team to design and implement Android push notification in China.
- Implemented changes on the purchasing screens on Duolingo Android and boosted membership sales.

Expii, Inc Pittsburgh, PA
Engineer Intern *Aug 2018 - Nov 2018*
- Implemented new designs across the stack and collaborated with the content team to boost SEO results to Google Search first page ranking by editing embedded metadata as the sole engineer.

Facebook, Inc Seattle, WA
Software Engineer Intern *May 2018 - Aug 2018*
- Designed and implemented a full-stack web app that queries from databases and collectively display the results with user-specified parameters as part of the Facebook Analytics Automated Insights.

Google, Inc Mountain View, CA; Boulder, CO
Software Engineer Intern *May 2017 - Aug 2017*
- Designed and implemented an interactive data visualization tool using Angular and D3.js to compute logic relationships among datasets that serves 150 business and engineer monthly users.
- Improved the filtering method and data animation by manipulating D3.js, solving the pain point for 100 professional daily users.

Engineering Practicum Intern *May 2016 - Aug 2016*
- Implemented a C++ backend server that retrieves data from a large, spatially indexed table for visualizing geospatial data.
- Designed and implemented an interactive web display of 3d geospatial data with WebGL and Google Maps API.

LEADERSHIP

Teaching Assistant, *Carnegie Mellon University*	May 2015 - May 2018; Aug 2019 - Current
Co-Founder, *Talent Pool (Startup)*	Oct 2017 - May 2019
CRLA Certified Level II: Advanced Tutor, *Carnegie Mellon University*	Feb 2015 - May 2018
Co-President and Panel Director, *CMU Innovation and Entrepreneurship Association*	Feb 2017 - Aug 2018
Corresponding Secretary and Elected Member, *IEEE-Eta Kappa Nu Honor Society Sigma Chapter*	May 2017 - Aug 2018

SKILLS

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

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