JIAHUI (KAREN) CHEN

jiahui.k.chen@gmail.com
https://jiahuikchen.github.io/

EDUCATION

UNIVERSITY OF UTAH
Computer Science B.S. with Math and Cognitive Science Minors – May 2020

RESEARCH EXPERIENCE

PROBABILITY: UNCERTAINTY AT FACEBOOK RESEARCH
June 2020 to Present
Uncertainty quantification methods for deep learning that improve robustness in out of distribution and adversarial settings.

NETWORK TRAFFIC CLASSIFICATION FOR NetSecOps (NSF #1642158)
January 2018 to May 2021
Similarity-based, probabilistic classification of network traffic. Advised by Jeff Phillips and Jacobus Van der Merwe.

SLATE: SERVICE LAYERS AT THE EDGE (NSF #1724821)
November 2017 to December 2018
Experimental scientific computing platform that hosts HPC resources and containerized research applications.

PUBLICATIONS

Jiahui Chen, Joe Breen , Jeff M. Phillips, Jacobus Van der Merwe. "Practical and Configurable Network Traffic Classification Using Probabilistic Machine Learning". In *Cluster Computing 2021*

Joe Breen, Lincoln Bryant, **Jiahui Chen**, et al. "Managing privilege and Access on Federated Edge Platforms". In *Proceedings of the Practice and Experience in Advanced Research Computing on Rise of the Machines (Learning)*, PEARC'19

Joe Breen, Lincoln Bryant, **Jiahui Chen**, et al. "Developing Edge Services for Federated Infrastructure Using MiniSLATE". In *Proceedings of the Practice and Experience in Advanced Research Computing on Rise of the Machines (Learning)*, PEARC '19

Joe Breen, Lincoln Bryant, Gabriele Carcassi, **Jiahui Chen**, et al. "Building the SLATE Platform". In *Proceedings of the Practice and Experience on Advanced Research Computing*, PEARC '18

TECHNICAL EXPERIENCE

SOFTWARE ENGINEER – FACEBOOK
June 2020 to Present
On the Probability: Uncertainty team under Facebook Research.
Researching, implementing, and applying methods that quantify uncertainty and improve robustness in AI.

SOFTWARE ENGINEERING INTERN – INSTAGRAM (FACEBOOK)
May 2019 to August 2019
Created ensemble neural network and random forest models that process Instagram uploads to detect and flag nudity.
Designed and implemented an automated pipeline that adjusts classifier score thresholds at which media is sent for human content moderation.

INTERN – MICROSOFT AI & RESEARCH ORG
May 2018 to August 2018
Feature engineering and classifier training for table header classification, improved existing header detection coverage by 2.6 times at 95% accuracy. Implemented intelligent table parsing as part of an overall project that extracts properties and values of a given subject from web pages.

LEADERSHIP AND SERVICE

CODING COURSE TA – CODE TENDERLOIN
June 2020 to Present – Helping teach free introductory JavaScript courses for a non-profit that serves the Tenderloin community of San Francisco.

SECTION LEADER – CODE IN PLACE
April to May 2021– Member of the teaching team for a 6-week online programming course offered by Stanford University. It brought together 12,000 students and 1100 volunteer teachers participating from around the world.

UNDERGRADUATE STUDENT ADVISORY COMMITTEE – SCHOOL OF COMPUTING
December 2018 to May 2020 - Represented and organized events for students of the Computer Science program at the University of Utah.

STUDENT AMBASSADOR – COLLEGE OF ENGINEERING, UNIVERSITY OF UTAH
November 2016 to May 2020 - Tours, outreach, and presentations leader.

MARINE CONSERVATION ALTERNATIVE BREAK SITE LEADER – BENNION CENTER
April 2017 to April 2018 – Planned and led an environmental conservation service trip of 10 college students over spring break.

FIRST LEGO LEAGUE WORKSHOPS CODIRECTOR – BENNION CENTER
April 2017 to April 2018 - Workshop planner and volunteer coordinator for FIRST Lego League program.

WOMEN IN STEM MENTOR – UNIVERSITY OF UTAH
May 2017 to May 2018 - Mentoring 10 freshman students, women in STEM group focus.

AMERICORPS SERVICE TERM
December 2016 to August 2017 - 300 hour service term with a community health nonprofit.

SELECTED COURSES AND SKILLS

Courses: Machine Learning, Data Mining, Computer Vision, Artificial Intelligence, Natural Language Processing, Algorithms, Graph Theory, Data Visua, Operating Systems, Foundations of Real Analysis

Skills: Python, Java, JavaScript, PyTorch, C#, Docker

AWARDS

University of Utah President's Scholarship, Regents' Scholarship, Bingham Alumni Scholarship, Dean's List (all semesters of college), Bingham High Sterling Scholar of Music (high school)