

# JIAHUI (KAREN) CHEN

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<https://tinyurl.com/jiahuichen-gscholar>

## EDUCATION

### UNIVERSITY OF UTAH

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

## RESEARCH EXPERIENCE

### NETWORK TRAFFIC CLASSIFICATION – NetSecOps (NSF #1642158)

January 2018 to May 2020

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

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, pages 45:1–45:5, New York, NY, USA, 2019. ACM.

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, pages 35:1–35:5, New York, NY, USA, 2019. ACM.

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, pages 5:1–5:7, New York, NY, USA, 2018. ACM.

### Under Review:

**Jiahui Chen**, Joe Breen, Jeff M. Phillips, Jacobus Van der Merwe. “Practical and Configurable Network Traffic Classification Using Probabilistic Machine Learning” Submitted to International Conference for High Performance Computing, Networking, Storage, and Analysis 2020 (Super Computing 2020)

## TECHNICAL EXPERIENCE

### 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.

### CODE U PROGRAM – GOOGLE

May 2017 to August 2017

Created a chat application under the supervision of a Google software engineer.

## LEADERSHIP AND SERVICE

### **HONORS STUDENT ADVISORY COMMITTEE CO-CHAIR – HONORS COLLEGE**

**Co-Chair May 2019 to present, Member since Sep. 2016** - Represented and organized events for students of the Honors College at the University of Utah.

### **UNDERGRADUATE STUDENT ADVISORY COMMITTEE – SCHOOL OF COMPUTING**

**December 2018 to present** - Represented and organized events for undergraduate students of the School of Computing at the University of Utah.

### **STUDENT AMBASSADOR – COLLEGE OF ENGINEERING, UNIVERSITY OF UTAH**

**November 2016 to present** - Tours, outreach, and presentations leader.

### **MARINE CONSERVATION ALTERNATIVE BREAK SITE LEADER – BENNION CENTER**

**April 2017 to April 2018** – Planned and led a marine-conservation themed service trip for a group of 10 other college students over spring break.

### **FIRST LEGO LEAGUE WORKSHOPS CODIRECTOR – BENNION CENTER**

**April 2017 to April 2018** - Workshop and volunteer coordinator for FIRST Lego League program at The Leonardo museum.

### **WOMEN IN STEM MENTOR – UNIVERSITY OF UTAH**

**May 2017 to May 2018** - Mentored 10 female freshman STEM students.

### **AMERICORPS SERVICE TERM**

**December 2016 to August 2017** - 300 hour service term at a community health non-profit, serving patients of downtown homeless health and hospital clinics.

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## 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, Keras/TensorFlow, C#, Docker

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## 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)