Julia Luo





Skills

- Python
- Ruby Java
- **OCaml**
- C & C++
- JS/Typescript
- Tensorflow & PyTorch
- Functional Programming
- React & React Native
- Android Studio & Firebase

Education

University of California, Berkeley

Electrical Engineering & Computer Science

- Eta Kappa Nu (EECS honor society) member
- Cumulative GPA: 3.99/4.00 | Technical GPA: 4.00/4.00

Graduated Dec 2019

New York City, NY May 2018 -

Aug 2018

Aug 2018

Berkeley, CA

Jan 2018 -

May 2019

Mountain View, CA

May 2017 -

Aug 2017

Berkeley, CA

Experience

Jane Street Capital

Core Services Team & Post-Trade Team

- Implemented user quotas for Kafka topic and partition usage and monitored changes with Zookeeper watches
- Added a baseline positions RPC to the service which decomposes derivatives into their underlying stocks
- Developed back-end using OCaml, and learned about functional programming paradigms and financial markets

Stripe San Francisco, CA May 2018 -

User Security Team

- Revamped password complexity rules using the Zxcvbn Ruby library complying with recent security research
- Collaborated with my team to enable SAML/SSO (Single Sign On) login capabilities for merchants
- Developed back-end using Ruby, working especially with creating and modifying dashboard API endpoints

Robotic AI & Learning Lab

Undergraduate Researcher under Sergey Levine

- Performed sparse patch training on PyTorch FCN model to do affordance segmentation for grasping objects
- Generated training data and validate models using MuJoCo physics simulator and 3D objects from Blender

Google

YouTube Rights Management Team

- Created web app to showcase the sound recording and composition mapping abilities of the Content ID API
- Revised the back-end of auto-rejection algorithms to improve the fairness of the Content ID application flow
- Developed back-end with Python and front-end with Spitfire templating language, HTML, and Javascript

UC Berkeley EECS Department

CS 170 Teaching Assistant (Efficient Algorithms and Intractable Problems)

- Host weekly discussions and office hours, and develop exam and homework problems
- Help students with concepts like graphs, dynamic programming, linear programming, and NP-completeness

Aug 2017 -Present

Awards

Accel Scholar (2018 - Present)

 Highly selective industry mentorship program run by Accel Partners

Jane Street Electronic Trading Contest (2018)

Finished 1st out of 33 invited teams

Dean's Honor's List (2016 - 2019)

Top 10% of engineering undergrads by GPA

CalHacks (2016)

Won Social Impact award

ECOO Computing Contest (2016)

Provincial rank of 26 out of 500 teams

Fermat Mathematics Contest (2015)

Made National Honor Roll with approximate rank of 119/20000 participants

Projects

Deep Puppets Facial Transfer for Videos

Graduate Class Research Project

- Accurately transfer the facial expressions of a source video onto the face and body of the target video
- Perform monocular face reconstruction, transfer expression vector from source to target, then modify Nvidia's vid2vid neural network to generate output video

League of Legends Champion Selector

Hack the North 2017

- Trained TensorFlow model on 25,000 previous matches based on the 5 champion selections of each player
- Predicts the outcome of a match to 72% accuracy
- Front-end uses React JS, back-end uses Node JS

Berkeley, CA May 2019

Waterloo, ON Sep 2017