

# Ruitian Lin

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## Summary

As a strong believer in the changing power of computer science, I am looking forward to designing and implementing the best software solution for the greatest goods.

## Skills

**Programming** Java, C++, C, Python, Ocaml, Bash, MATLAB, JavaScript, TypeScript, HTML/CSS  
**Tools/Framework** Git, UNIX/Linux, CMake, React, MeteorJS, Cordova

## Work Experience

### Arista Networks

Santa Clara, CA

#### SOFTWARE ENGINEERING INTERN

Jun. 2018 - PRESENT

- Designed and implemented a new FPGA version look-up method which could potentially reduce the boot time of the switch by 1 minute
- Implemented SEU recovery mechanism on FPGA that will detect and automatically repair the CRC error without affecting the network traffic
- Enhanced the command line interface by providing the ability to display information about the software corrected CRC errors

### ProductBio

San Diego (remote), CA

#### DATA ENGINEERING INTERN

Jan. 2018 - Jun. 2018

- Structured and sanitized a large amount of supply chain data against the company's database schema
- Developed a predictive model that explains the correlation between products' pricing and the environmental attributes
- Applied dimensionality reduction on the model for visualization

### Meitu

Xiamen, China

#### SOFTWARE ENGINEERING INTERN

Jun. 2017 - Sep. 2017

- Improved the image conversion efficiency through integrating open source libraries into the company's image codecs project
- Achieved 2x speedup over the core image filtering algorithms by refactoring code structures, applying matrix operations and using multi-threading
- Designed and implemented demos of 3D rendered images and animation with WebGL and ThreeJS

### UC San Diego

La Jolla, CA

#### UNDERGRADUATE TEACHING ASSISTANT

Jan. 2017 - Mar. 2018

- Hosted office hours and provided one-on-one tutoring graded assignments and exams
- Graded assignments and exams

## Projects

### Cobra Language

#### TECH STACK: OCAML, C

Mar. 2018 - Jun. 2018

- Designed and built a statically-typed functional programming language from scratch
- Implemented mark-compact algorithm as the automatic garbage collection mechanism
- Applied compiler optimization techniques to reduce the number of assembly instructions generated

### NBA Most-Valuable-Player Predictor

#### TECH STACK: PYTHON, SCIKIT-LEARN

Oct. 2017 - Nov. 2017

- Conducted quantitative analysis on all player statistics to identify patterns and training features
- Built and validated a predictive model that ranks each player as potential MVP candidate

## Education

### University of California, San Diego

GPA: 3.86/4.0

#### B.S. IN COMPUTER SCIENCE AND ENGINEERING

Expected Graduation: June. 2019

**Coursework Completed:** Operating system, Networked services, Compiler construction, Recommender system & Web mining, Client-side web programming, Enterprise finance

## Extracurricular Activity

### Triton Engineering Student Council

La Jolla, CA

#### LEAD OF PROFESSIONAL DEVELOPMENT

Oct. 2016 - Jun. 2018

- As the team lead, I organized UCSD's largest student-run career fair Decaf, with over 50 companies and 1300 students in attendance in January 2018
- Designed and Executed a new volunteer management mechanism that successfully managed over 60 volunteers on the day of