Ruitian Lin

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Summary

As a strong believer in the changing power of computer science, I am looking forward to gaining industry experience while continuing to design and implement 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
SOFTWARE ENGINEERING INTERN

Santa Clara, CA
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 single event upset (SEU) recovery mechanism on FPGA that will detect and automatically repair the CRC error without affecting the network traffic
- Enhanced the command line interface with the ability to display information about the software corrected CRC errors

ProductBio
DATA ENGINEERING INTERN

San Diego (remote), CA
Jan. 2018 - Jun. 2018

- Structured and sanitized over ten thousands entries of merchandise data against the company's database schema
- Developed a predictive model that explains the correlation between products' pricing and the environmental attributes
- Applied Principle component analysis(PCA) on the model for visualization

Meitu
SOFTWARE ENGINEERING INTERN

Xiamen, China
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
UNDERGRADUATE TEACHING ASSISTANT

La Jolla, CA
Jan. 2017 - Mar. 2018

- Hosted office hours and provided one-on-one tutoring
- 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 such as constant propagation and instruction selection 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 a predictive model and successfully predicted the top three MVP candidates in the most recent NBA season

Education

University of California, San Diego
B.S. IN COMPUTER SCIENCE AND ENGINEERING

GPA: 3.86/4.0
Expected Graduation: June. 2019

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

Extracurricular Activity

Triton Engineering Student Council
LEAD OF PROFESSIONAL DEVELOPMENT

La Jolla, CA
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