

Yuchen Yao

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Education

University of California, Los Angeles (UCLA)

Sep 2018 - Jun 2022

Bachelor of Science in Mathematics of Computation

Courses: Computer System, Algorithms, Data Structure, Linear Algebra, Differential Equations, Machine Learning

Work Experiences

Amazon

Seattle, WA

Incoming Software Development Engineer Intern

Jun 2021 - Sep 2021

NortonLifeLock

Los Angeles, CA

Software Engineer Intern

Apr 2020 - Sep 2020

- Developed a continuous integration system using Azure DevOps to automate build and test process to replace the Jenkins system that was used by the iOS team
- Integrated Rome to Carthage workflow to provide better cache for the build process and thus sped up the whole build process by 5x
- Researched various functions and APIs in fastlane and Azure DevOps to provide the team a better estimate of whether a new feature, e.g. machine health monitor, should be included

Symantec

Los Angeles, CA

Software Engineer, Mobile Intern

Jun 2019 - Sep 2019

- Developed middleware of a security product for Android platform using Kotlin, Java, and JavaScript to bridge communication between cloud service and the mobile app
- Prototyped a proof of concept app for iOS platform using Swift, JavaScriptCore, and WKWebView to test asynchronous loading capabilities on iOS
- Conducted unit tests and produced robust test results for new features. Thoroughly tested their performance impact on the product using android studio profiler and other automation tools

Unmanned Aerial Systems (UAS@UCLA)

Los Angeles, CA

Software Engineer, Ground Team

Jan 2019 - Present

USRC (NASA sponsored undergraduate research program)

- Designed and built software and hardware systems that enable drone swarms to lift and transport an object in air for a long period of time
- Researched, designed and implemented a mesh network communication system based on Greedy Forwarding and Limited Flooding algorithms that is better suited for dynamic routing ad hoc network

AUVSI (Association for Unmanned Vehicle Systems International)

- Designed, manufactured, and tested software and hardware systems for carrying out mock search and rescue missions
- Built the communication link between various parts of the system and added UI features on React frontend to access these features to control the drone

Projects

Self Driving System for Unmanned Ground Vehicle (UGV)

Jul 2019 - Present

- Built and tested a communication system across multiple computers and microprocessors to collect and analyze data from sensors on the vehicle for the navigation system
- Researched and incorporated robot operating system (ROS) to programs on onboard computer to improve system extensibility and stability and simplify interprocess communication
- Designed, built, and tested hardware for UGV. Improved 3D printer to better print the desired structure with a filament that has better mechanical property

Skills

Programming Languages: Java, Python, HTML, PHP 5, CSS, Javascript, C++, C, Kotlin, Swift, JSON, XML, Linux Zsh

Frameworks: Socket.io, Android, iOS, React, ROS, webpack, Git, Protocol Buffers, Node.js, OLSR