Phil Yang

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Education

University of Southern California, Los Angeles CA **Aug 2017–May 2021 (Expected)**
Bachelor of Science, Mechanical Engineering
Minor in Computer Science
GPA: 3.47, Dean's List: 2 semesters

Programming Skills & Coursework

Languages: C++ • Java • HTML • CSS • PHP • JavaScript • SQL • ES6 • Swift
Technologies: Reactjs • Bootstrap • MongoDB • Nodejs • AWS • Git • Siemens NX
Coursework: Professional C++ • Algorithms • Data Structures • Data Analytics • iOS App Dev • Full-Stack Web Dev • Advanced Front End Dev • Programming Graphical User Interfaces

Experience

Teaching Assistant **Aug 2019–present**
USC Viterbi School of Engineering Los Angeles, CA
- Managing a team of 6 to grade 10 assignments and 3 exams for ~80 students / semester
- Leading 4 weekly sessions of office hours for ~5 students / session to debug code in Java and C++ or explain concepts like dynamic and functional programming, and encapsulation

Enterprise Applications Intern **Jun 2019–Oct 2019**
Los Angeles Unified School District Los Angeles, CA
- Redesigned the Information Technology Department's web pages using HTML, CSS, and JavaScript to meet responsive design and accessibility requirements given by department
- Established the LAUSD Hall of Fame database by developing a web form using HTML, CSS, and PHP to input data into SQL Server which resulted in the addition of 1100 alumni

Academic Projects

NASA Images **Jun 2020–Jul 2020**
- Developed a full stack React application to display image archives from NASA's Astronomy Photo of the Day and Mars Rover APIs and allow users to personalize photos
- Designed a NoSQL schema to store login information and account data with Mongoose
- Established CRUD operations to the database by using Axios to send asynchronous requests from the frontend to routes written with Express and Nodejs on the server-side

Sorting Algorithm Visualizer **May 2020–May 2020**
- Developed a web application to compare the execution time of common sorting algorithms
- Implemented bubble, merge, quick, insertion, heap, and selection sort in JavaScript
- Created a table to record the sorting method, time, and number of elements from each run

Arduino-Monitored Kelp Tank for the Nuzhdin Lab at USC **Aug 2019–Dec 2019**
- Developed an Arduino sensor system in C/C++ to track temperature and salinity data
- Designed a solution to save the data from the Arduino serial port to a permanent file
- Generated a live feed of the tank conditions using the Losant IoT framework by sending scheduled POST requests containing new data to a webhook created in Losant IoT