Tommy Nguyen

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EDUCATION

University of California, Los Angeles (UCLA) Sep. 2018 - Jun. 2022
Bachelor of Science in Mechanical Engineering GPA: 4.0/4.0

- Tech Breadth in Computer Science: Introduction to Computer Science I & II (C++, includes Data Structures and Object Oriented Programming), Discrete Math

SKILLS

Languages/Libraries: Python, C++, MATLAB, Arduino IDE, Javascript, HTML, CSS, LabVIEW, Simulink
Framework/Tools: Git, Django, ReactJS, MongoDB, MaterialUI, JSON
Hardware: SolidWorks, 3D Printing, NI DAQ, Soldering

EXPERIENCE

Mechanical Engineer Intern Jun. 2021 - Sep. 2021
Nordson | Carlsbad, CA

- Designed and built a pneumatic powered arm which gripped and moved a silicon wafer, allowing for cheaper and more efficient testing on dispensing machines
- Worked as the lead engineer of the project, additionally managing both the timeline and the budget to finish on time at 50% under budget
- Researched various linear movement mechanisms, created initial concepts, and used tradeoff analysis to choose the cheapest effective design
- Proactively set up meetings with electrical and software engineers to facilitate knowledge transfer, leading to rapid learning and implementation of new technologies
- Wrote and implemented LabVIEW code onto NI DAQ modules to control the test fixture and set up automatic cycling, allowing for overnight testing without human intervention

PROJECTS AND ACTIVITIES

When2Eat

- Created from scratch a full-stack web application aimed to help schedule meals with friends by analyzing overlapping availabilities and preferred cuisines
- Inquired and stored user availabilities and preferences securely in a MongoDB database and created an API using Django to perform CRUD operations allowing client to easily access the processed data
- Developed an easy-to-use graphic user interface utilizing ReactJS and MaterialUI library to improve customer experience while maintaining accessibility

Sudoku Solver

- Created an app using Pygame allowing users to input Sudoku puzzles and generate a solution
- Implemented a backtracking algorithm to quickly and accurately solve the Sudoku board

UCLA Rocket Project Club Sep. 2019 - Jun. 2022

- Created a 6 degree of freedom simulation for a gimballed thrust rocket in Simulink, implementing random wind and drag to improve accuracy
- Programmed a PID controller in Python to control a gimballed thrust rocket, allowing for stable flight without the use of fins