WESLEY YEE

Robotics Graduate Student - University of Pennsylvania

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EDUCATION

Robotics M.S.E.

University of Pennsylvania

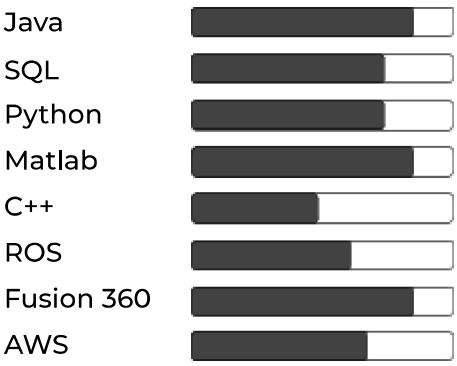
Aug 2020 - Present | GPA: 3.70

B.S. Mechanical Engineering

Rice University

Aug 2014 - May 2018 | GPA: 3.50

SKILLS



RELEVANT COURSEWORK

Intro. to Robotics

Distributed Systems

Computer Graphics

Algorithms and Computation

Fundamentals of Control Systems

Intro. to Engineering Design

AWARDS

World Congress of Biomechanics

2018 finalist in international undergraduate design competition

President's Honor Roll

Spring 2017

WORK EXPERIENCE

Software Consultant

Quorum Software

August 2018 - May 2020 | Houston, TX

- Developed, implemented and tested project implementations for 120+ hour web-based ERP systems in C# and SQL for data management needs of natural gas pipeline clients
- Performed mapping of target to source data sets, created conversion scripts, and executed migration of measurement and billing data collected from 1.2 million customers accumulated over 10+ years

Teaching Assistant

University of Pennsylvania

January 2021 - Present | Philadelphia, PA

- Grade course material and hold weekly office hours for CIS 455/555 (Distributed Systems), which is consistently rated as one of most difficult courses at Penn

PROJECTS

Distributed Search Engine

- Worked on team of four to build a Google-inspired distributed search engine completely hosted on AWS
- Independently constructed the web crawler capable of downloading 160,000+ pages/hour using Spark Java web framework

Controller for 6-DOF Robotic Manipulator

- Implemented an RRT* and artificial potential field path planning algorithm with obstacle avoidance in MATLAB and ROS
- Utilized forward, inverse, and velocity kinematics to pick up blocks from dynamic turnstile during in-class competition

Robotic Horse for Rehabilitative Therapy

- Worked on team of six to build a programmable device used to simulate movement of a horse for hippotherapy patients
- Utilized Stewart Platform concept to enable 6-DOF movement and a low-cost, open-source design