Dylan Kriegman

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Github, Linkedin

EDUCATION

University of Colorado Boulder 2020 – December 2022
Bachelor of Science in Computer Science, GPA 3.68
Engineering Deans List

Carnegie Mellon University 2018 – 2020
Bachelor of Science in Mechanical Engineering, GPA 3.08
Minor in Computer Science

Relevant Technology and Courses

Languages: C, C++, Python, Javascript, Java, MATLAB, HTML

Technologies: Linux, Docker, Node.js, Numpy, MySQL, Pandas, Git, AWS, ROS

CS Courses: Operating Systems, Data Science, Algorithms, Software Development, Data Structures, Computer Systems, Linear Algebra for Computer Science

Work Experiences

Software Engineer Intern – NetApp (Summer 2021): Development of internal software tools.

Research and Engineering Undergraduate - Autonomous Robotics and Perception Group (Spring 2021 - Present): I write softeware for robot navigation and planning in the DARPA Subterranenan Robotics Challenge

Engineering Intern - Bioinspired Robotics Lab (Summer 2019): I wrote code for interfacing with a snake-like robot's actuators using a controller that I designed. I also created a mechanism for attaching cameras to the robot using CAD and 3D printing.

Summer Researcher - Scripps Institution of Oceanography (Summer 2017): I designed an underwater robot with an imaging system that uses 18-cameras and 19-computers to stitch together a high-resolution view of marine environments.

FIRST Robotics Competition Team, Member (2015 – 2018): I worked with my team to build robots to compete in the FIRST Robotics Competion. We were San Diego Regional Finalists and competed in the FIRST World Championship.

CCA Botball Robotics Club, President (2015 – 2018): I led a team of students to build and program autonomous robots that complete challenges using sensors and algorithms.

Robotics Summer Camps at CCA, Counselor (Summer 2016): I helped run a camp where we taught kids in grades 5-8 about robotics and engineering.

My Projects

Go Web App (Fall 2020 – Present): I am developing a web application where users can play each other in the game of Go. Created frontend business logic, model, and UI using ReactJS with HTML and CSS. Communication between players implemented via backend Node.js server using Socket.io.

CMU Mobot Competition (Spring 2019): I created a mobile robot and wrote software that enabled it to autonomously follow paths using PID controllers based on infared and encoder data.

Robot Arm with Path Planning (Winter 2019): I designed and built a 3-axis robot arm using CAD and 3D printing. Wrote software in Python to detect obstacles from Xbox Kinect depth data using computer vision via OpenCV. Applied path-planning algorithms with an inverse kinematic model that enabled the arm to follow 3D trajectories without colliding with obstacles.

FPGA Circuit Design (Spring 2018): I designed digital circuits in Multisim to recreate the video game Pong. The game logic was done on an FPGA Board while a Raspberry Pi handled graphics.