Dylan Kriegman

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EDUCATION

University of Colorado Boulder 2020 – Dec 2022
Bachelor of Science in Computer Science, GPA: 3.70
Engineering Deans List (Fall 2020)

Carnegie Mellon University 2018 – 2020
Bachelor of Science in Mechanical Engineering, Minor in Computer Science
Transferred to CU Boulder

SKILLS & COURSES

Languages: Python, C, C++, Java, Javascript, HTML5, CSS

Technologies: ReactJS, Node.js, MySQL, Socket.io, Pandas, SciPy, Numpy, Git, Heroku, AWS

CS Courses: Operating Systems, User & Web Analytics, Software Engineering, Data Science, Algorithms, Computer Systems, Data Structures, Linear Algebra for CS

EXPERIENCES

Private Tutor (Fall 2020 – Present): Tutor CU Boulder students in Computer Science and Math.

UCSD Bioinspired Robotics Lab, Summer Intern (Summer 2019): Made improvements to a soft everting robot for coral reef exploration. Designed and tested new mechanisms for attaching payloads. Designed a waterproof controller and new electrical system.

Scripps Institution of Oceanography, Summer Researcher (Summer 2017): Designed an autonomous underwater vehicle and 18-camera imaging system for creating high-resolution VR content of marine life.

FIRST Robotics Competition Team, Member (2015 – 2018): Mechanical design and manufacturing of robots. Won San Diego Regional Finalists in 2017 and qualified for and competed in World Championships.

CCA Botball Robotics Club, President (2015 – 2018): Led a team of students to build and program autonomous robots that complete challenges using sensors and algorithms. Won Programming Award in 2017.

Robotics Summer Camps at CCA, Counselor (Summer 2016): Taught campers about programming, algorithms and engineering through robotics.

PROJECTS

Go Web App (Fall 2020 – Present): 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 logic using NodeJs server with Socket.io.

CMU Mobot Competition (Spring 2019): Designed and built a mobile robot. Wrote code for controlling the robot that uses infrared and encoder data with a PID controller to follow marked lines.

Robot Arm with Path Planning (Winter 2019): Designed and built a 3-axis robot arm using CAD and 3D printing. Wrote software to detect obstacles from Xbox Kinect depth data using computer vision. 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): Designed digital circuits in Multisim to recreate the video game Pong. Implemented on an FPGA board alongside a Raspberry Pi computer for graphics.