Dylan Kriegman

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Education

University of Colorado Boulder Boulder, CO 2020 – Dec 2022
Bachelor of Science in Computer Science

Carnegie Mellon University Pittsburgh, PA 2018 - 2020
Bachelor of Science in Mechanical Engineering
Minor in Computer Science
Overall GPA: 3.09

Canyon Crest Academy San Diego, CA
Unweighted GPA: 3.75
Weighted GPA (10-12): 4.32

Experiences

Private Tutor, Self-Employed Fall 2020 – Present

- Tutor CU Boulder students in Computer Science and Math

University of California, San Diego, Mechanical Engineering Summer 2019
Bio-Inspired Robotics Lab

- Made improvements to a novel soft everting-robot for coral reef exploration
- Built and tested mechanisms for attaching payloads
- Upgraded electronics and built a waterproof controller

Scripps Institution for Oceanography, Jaffe Laboratory for Underwater Imaging Summer 2017

- Designed an autonomous underwater vehicle with a novel underwater imaging system for creating high-resolution VR content of marine life
- 18 cameras, 19 computers

Extracurricular activities

Alpha Epsilon Pi Fraternity 2019 - 2020

- Head of Philanthropy

Senior Club Member – CMU Robotics Club: 2018 - 2020

- Work on robotics-related projects

President and Founder – CCA Botball Robotics Club: 2015 - 2018

- Taught student how to design, program, and construct autonomous robots that complete challenges using sensors and algorithms
- Won Programming Award in 2017

Team Member – FIRST Robotics Competition: 2015 - 2018

- Mechanical design and manufacturing of robots
- San Diego Regional Finalists in 2017
- Qualified for and competed in 2017 World Championships

Mentor – FIRST Lego League Team (FLL): 2016 - 2018

- Mentored elementary school students on two local FLL Robotics Teams

Tutor – San Dieguito Alliance for Drug Free Youth: 2014 - 2018

- Tutored elementary school students in Study Buddy Program

Other Engineering Projects

Mobot Competition Robot: Spring 2019

- Designed and built a mobile robot for annual competition
- Uses infrared sensors, PID controllers, and motors with quadrature encoders to smoothly follow curves

Path Planning Robot Arm: Winter 2019

- Designed and built a 3 axis-robot arm
- Wrote code to interpret depth data from a Kinect Sensor for obstacle detection
- Programmed the robot to follow a 3D trajectory based on an inverse kinematic model such that it would not collide with obstacles

FPGA Circuit Design Spring 2018

- Designed digital circuits in Multisim that modeled the core functionality of the 1970's video game Pong
- Circuits were implemented on an FPGA board alongside a Raspberry Pi computer for graphics

Summer Experiences

Counselor – Robotics Summer Camps at Canyon Crest Academy: Summer 2016

- Taught campers from grades five to eight about principles of engineering through hands-on robot building and programming

Volunteer – Dropbox: Summer 2016

- Worked on the speech interface for a virtual assistant for work

Robot Programming Course – Stanford Pre-Collegiate Institutes: Summer 2016

- Studied and implemented AI for robotics
- Course based on Stanford class CS123

Skills

Programming: Python, Java, C, MATLAB
Computer-Aided Design (CAD): SolidWorks and Fusion 360
Fabrication: Digital fabrication, machining, mechanical assembly