

# Alexander Nivelles

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Aspiring engineer with a passion for Linux and open source products. Excellent collaborator, organized, and quick at learning new skills.

## Education

University of California, Santa Cruz

- Bachelor of Science in Computer Engineering, Robotics and Control Concentration Jun. 2023

## Skills

Programming

- C | C++ | Python | Makefile

Software

- Linux | Shell | GCC/GDB | Git | Microsoft Office |

## Experience

Mechatronics Tutor and Reader, UCSC, Santa Cruz

Mar. 2023 - Jun. 2023

- Assisted students in addressing complex problems with robotic systems and sensor interfaces
- Reviewed student submissions and ensured they remained on track

Technical Support Specialist, UCSC, Santa Cruz

Sep. 2021 - Jun. 2023

- Serviced and provisioned university staff computers to allow for ease of use and remote management
- Troubleshooted faulty equipment to ensure usability
- Checked out loaner computers to provide students and staff with the ability to continue working
- Created a Python script to automate label creation for UCSC's Covid testing program

Instructional Designer and Tutor, UCSC S-Lab, Santa Cruz

Jun. 2020 - Dec. 2020

- Collaborated to create instructional materials for Slugbotics' premiere of a 3-unit course designed to introduce new students to our workflow
- Introduced the skills for PCB design with Autodesk EAGLE

## Projects

Game of Drones: House of the Slug, Introduction to Mechatronics

- Worked in a team over 5 weeks to construct an autonomous robot capable of firing projectiles into a basket
- Applied knowledge of microprocessors and electronic circuit design to debug and test hardware

MATE Underwater ROV Competition, Slugbotics

- Led the design of autonomous image processing algorithms with OpenCV and C++ for Slugbotics
- Enabled communication with an Arduino over UDP to allow for manual ROV control by pilots
- Leveraged Qt Creator to develop a user-friendly GUI for pilots