

GEORGE (GED) DAVIS IV

CONTACT

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WEBSITE PORTFOLIO

- ged-davis-portfolio.com

SKILLS

- Fusion 360 parametric CAD
- Mechanical and Electrical design
- Machine operation, maintenance, and repair
- Programming languages: C++ and Python
- Machine Learning (CNN and Shallow Networks) using Tensor Flow library
- Subtractive manufacturing: CNC / Vertical Milling, Metal Lathes, Plasma Cutting
- Additive Manufacturing: SLA and FDM 3D Printing, Stick and MIG welding, Resin Casting, Carbon Fiber and Fiber Glass
- Micro processors and autonomous systems control

EDUCATION

Expected in June 2028

Bachelor of Science Mechanical Engineering

Santa Rosa Junior College, Santa Rosa, California, CA

Studied at Syracuse University 2022-2024. Currently at SRJC and in the process of transferring to a UC in Fall 2026.

PROFESSIONAL SUMMARY

3rd year Mechanical Engineering student with hands on experience in a variety of skills including: design, manufacturing, mechanics, programming, scientific research, and biology. Lead and founder of two engineering research projects.

EXPERIENCE

January 2024 - July 2024

Biomedical Engineering Intern *Tomorrow Biostasis*, Berlin, Germany

- Collaborated on the design and manufacturing of a variety of medical, research, and testing equipment
- Designed, prototyped, and tested medical data logger and electrical sensor system
- Wrote python and C++ programs for research facility automation, sensor processing on microcontrollers, and operating system for data logger
- Ran research project for validating new design of a sensor to track a proprietary biomarker in blood
- Built and designed various electronic and mechanical devices such as specimen transport and storage equipment
- Created documentation on new designs and writeups on statistical analyses of efficacy tests results

May 2023 - August 2023

- Radio control and sensor integrated autopilot
- Self-motivated to learn and improve

ACCOMPLISHMENTS

- Started university research project for the design and manufacture of full ocean depth submersibles.
- Student head of marine biology wet lab. Designed and manufactured systems to sustain a variety of marine species using aspects of chemical, biological, and mechanical theory
- Commercial level scuba license: PADI Divemaster
- Diver for Sonoma County Sheriff's office search and recovery dive team
- Built and maintain my own workshop for personal projects

LANGUAGES

Spanish



Limited Working

German



Professional Working

English



Native or Bilingual

Russian



Elementary

Engineering Intern *Alpha Unmanned Systems*, Madrid, Spain

- Wrote various documentation for the use and maintenance of military aircraft.
- Completed pilot and maintenance training for UAS A900 and A800.
- Did in field testing of systems and components.
- Designed and built engine testing equipment.
- Completed simulation and design of turbine fan for use in the A900.

May 2023 - December 2023

Robotics Lead Research Engineer *Syracuse University*, Syracuse, NY

- Started and organized a team of 8 students, 3 faculty members, and a professional advisor.
- Created new simulation program for submerged optical systems
- Designed parts and assemblies to decrease material and manufacturing costs significantly
- Manufactured submerged optics testing setup to confirm results of simulation program
- Produced prototype parts using additive manufacturing
- Communicated and worked in collaboration to develop research goals and solutions.
- Wrote 3 US provisional patents related to the field of research.

August 2020 - June 2022

Robotics Lead Research Engineer *Tabor Academy*, Marion, MA

- Designed and manufactured a robotic device for use in a marine study
- Fully designed a testing device with many structural, mechanical, and electrical, requirements in CAD
- Proposed project in writing and with a presentation for approval
- Manufactured the device while maintaining a detailed log and communication with the extended team
- Coded the device using C++ and trained it with self-made standard reagents
- Completed a unit capable of doing up to 12 titration and colorimetric tests fully autonomously with high accuracy
- Presented the project and its findings to a large assembly