Sean Michael Manger

Watsonville, CA seanmanger22@gmail.com Personal Site 831-269-1918 Sean Manger SeanM25

Education

University of California, Santa Cruz Expected: Mar. 2026
Pursuing BS in Electrical Engineering
Enrolling in 4+1 Masters Program in Electrical Engineering after completing Bachelors Degree

- **Current GPA:** 3.62
- **Relevent Coursework:** Feedback Control Systems, UAV Theory and Controls, Analog Electronics, Logic Design, High-Speed Digital Design, Signals and Systems, Properties of Materials, Embedded C Programming
- **Dean's List Fall 2024**

Cabrillo College, Aptos, CA Aug. 2019 - Dec. 2023
AS Computer Science, AS Physics, AS Mathematics, AA Liberal Arts and Science

- **Cumulative GPA:** 3.75
- All degrees received with **High Honors** or **Honors** distinction

Experience

Electrical Engineering Intern Monterey, CA
Naval Postgraduate School Energy Academic Group Dec. 2025 – Jan. 2026

- Assembled a spreadsheet of needed components (Generators, Solar Panels, Battery Banks, etc) for an expeditionary microgrid project. Listed appropriate specs for each component and sourced technical documentation and datasheets for each component.
- Researched supply chain of each component to limit reliance on foreign sources of manufacturing. Gathered open-source microgrid research material from both domestic and foreign sources. Spreadsheet and supporting technical material reviewed by superior for technical depth and accuracy resulting in a successful foundation to build the microgrid project.

Hardware Systems Collective Lab Engineer and Undergraduate Researcher Santa Cruz, CA
University of California Jul. 2025 – Present

- An updated time-to-digital converter design was needed by the HSC for its research. Successfully implemented, and tested an updated time-to-digital converter design using Verilog and Vivado resulting in an easily deployable and portable design.
- Working on characterizing the updated time-to-digital converter design; when using AMD Ultrascale+ architecture. Changing PLL configurations and gathering needed data. Creating plots of data vs. parameters of interest to the HSC.

Baskin Engineering Course Reader Santa Cruz, CA
University of California Sept. 2024 – Present

- Course Reader for **Logic Design**, **Intro to Electronic Circuits**, and **Properties of Materials** grading Homework, Midterms, and Final Exams as needed.
- Answer all grading inquiries and work with each professor to ensure equitable grading for all students.

Technical Skills and Licenses

- **Programming Languages/Tools:** Python, Embedded C and C++, Verilog HDL, RISC-V Assembly, TCL, HTML, CSS, LaTeX, Linux
- **Engineering Software:** Vivado, OnShape CAD, MATLAB, Simulink, Control Systems Toolbox, Cadence PSpice, Altium Designer
- **Licenses:** FAA sUAS License

Engineering Projects

- "Watch Your Step" platformer game with Verilog and Basys 3 FPGA
- Power Line Inspection with UAVs for UCSC
- Flight Sim in Python
- Simulated Toaster Oven using C and STM-32 Nucleo MCU
- Ground Bouce PCB

Please See my Personal Website linked above for further detail

Hobbies and Interests

- **Technical Interests:** Controls, Embedded Systems, Sensors, Robotics, Logic Design, Hardware, Software, Aircraft
- **Personal Hobbies:** Jogging, Reading, Sewing, Fishing

Languages

Russian	Elementary Level
Spanish	Limited Proficiency