Sean Michael Manger

📍 Watsonville, CA ✉ seanmanger22@gmail.com 🌐 Personal Site 📞 831-269-1918 in 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 Bachelor 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 foriegn 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
- The lab needed an updated time-to-digital converter design 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.
- Characterizing the behavior of the updated time-to-digital converter on AMD Ultrascale+ architecture. Changing PLL conditions and gathering binary hamming weight data. This data is then plotted vs. parameters of interest to the lab.

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