

Elizabeth Seaton

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EDUCATION

B.S.E., Electrical Engineering

Expected Graduation: May 2028

Arizona State University, Tempe, AZ planning to take Fundamental Engineering Exam

4.0 GPA, Deans List

Relevant Courses: Systems Engineering with AI Case Study (EEE 498), Circuits 1 (EEE 202)

TECHNICAL SKILLS

Programming: C, C++, Python, MATLAB, Java, JavaScript

Embedded & Controls: MATLAB Simulink, PID control, odometry, PCB design, trajectory generation

Computer Vision & ML: OpenCV, TensorFlow, YOLOv8

Tools & Systems: Git, GitHub, Gitea, Linux/GNU, AWS, Google Cloud, FFmpeg, GStreamer, EasyEDA

CAD & Fabrication: SOLIDWORKS, OnShape, Fusion 360, lathe, manual mill, CNC router, composites

WORK EXPERIENCE

Engineering Intern - AXON Enterprise - Scottsdale, Arizona

June 2025 – August 2025

- Developed low-latency real-time video streaming pipelines using RTSP, RTMP, and SLDP with FFmpeg and GStreamer for remote robotics and sensing applications
- Deployed and validated streaming and processing systems on AWS and Google Cloud environments
- Configured, debugged, and optimized Linux-based systems to support real-time performance and reliability
- Integrated firmware and software components from multiple external vendors into a unified system architecture
- Redesigned and optimized prototype user interfaces to improve usability, responsiveness, and system interaction

Undergraduate Teacher's Assistant - Arizona State University – Tempe, Arizona

January 2026 – Present

- Assist instruction for Digital Design Fundamentals, supporting students with logic design and coursework
- Provide technical guidance during labs and help troubleshoot circuit and design issues

PROJECTS

Design Lead - NASA PSYCHE Rover, EPICS, ASU

August 2025 – December 2025

- Led mechanical design for a rover prototype supporting research related to the NASA Psyche mission
- Designed and CAD-modeled the version 1 rover prototype, accounting for mechanical constraints, integration requirements, and iteration readiness
- Collaborated within a small interdisciplinary team of 6 on control strategy and system integration

L1 Rocket – SEDS Rocketry Division, ASU

September 2025 – December 2025

- Designed a single-stage high-power rocket to pursue Level 1 certification
- Manufactured composite airframe components using fiberglass layups and carbon fiber tip to tip
- Designed and built a custom flight controller and implemented low-level drivers in C

ACTIVITIES

SEDS Rocketry Division, ASU

September 2025 – Present

- Contribute to avionics system design for competition rockets
- Design PCB layouts and CAD housing for integrated sensor systems
- Develop and test embedded software for flight computers and custom drivers

IEEE, ASU Student Branch

Board Member – Marketing Chair

August 2025 – Present

- Organize and promote technical and professional development events for engineering students
- Coordinate communication across multiple platforms to increase member engagement
- Attend IEEE events including Rising Stars and the Region 4 and 6 OPCon

FIRST Robotics Competition - Chandler & Gilbert, Arizona

August 2021 – May 2025

Team Captain – Founder – Programming Lead – Drive Team – 2024 Dean's List Winner

- Founded and led an FRC team, overseeing mechanical design, software development, and competition strategy
- Developed autonomous navigation systems using PID control, odometry, and trajectory generation
- Implemented neural-network-based vision pipelines using OpenCV and YOLOv8