Brody England

(520) 507-9660 | brodyengland3@gmail.com | linkedin.com/in/brodyengland | github.com/bme2003 | brodyengland.com

EDUCATION

Northern Arizona University　　　　　　　　　　　　　　　　　　　　　Aug. 2022 – May 2026
B.S. Computer Science, GPA: 3.5　　　　　　　　　　　　　　　　　　　　　　　　*Flagstaff, AZ*

EXPERIENCE

Research Software Engineer Intern　　　　　　　　　　　　　　　　　　　Jan. 2025 – Present
Northern Arizona University (SICCS / FEWSION)　　　　　　　　　　　　　　　　　　*Flagstaff, AZ*
- Improved **satellite-image classifier model performance** to **82%** test accuracy by developing reproducible PyTorch/TensorFlow training pipelines.
- Scaled **hydrologic analysis coverage** to **10K+** basins by authoring an open-source modeling library with Neo4j-backed graph storage.
- Cut **end-to-end compute time** by **53%** by optimizing SLURM workflows and solver configurations across GLPK/CBC/IPOPT.

Research Software Engineer Intern　　　　　　　　　　　　　　　　　Jun. 2025 – Aug. 2025
Griffiss Institute / AFRL Rome Lab　　　　　　　　　　　　　　　　　　　　　　*Rome, NY*
- Increased **navigation accuracy** by **58%** by engineering ROS nodes for the AgileX Limo (LiDAR obstacle avoidance, HSV vision, IMU fusion, odometry logging).
- Reduced **collision rate** by **75%+** by building a Python/Nengo associative-learning controller that fuses camera and IMU for autonomous navigation.
- Enabled **repeatable regression testing** as measured by KPI dashboards, trajectory visualizations, and versioned telemetry logs by delivering a full evaluation suite.

Senior IT Support Technician　　　　　　　　　　　　　　　　　　　　Feb. 2024 – Aug. 2025
Northern Arizona University　　　　　　　　　　　　　　　　　　　　　　　　*Flagstaff, AZ*
- Shortened **ticket resolution time** by **18%** by leading a 15-person team and instituting onboarding SOPs and incident-response procedures.
- Supported **2,000+** annual device deployments as measured by automated Linux/Windows PE imaging runs by designing and maintaining imaging environments.

Student IT Support Technician　　　　　　　　　　　　　　　　　　　Nov. 2022 – Feb. 2024
Northern Arizona University　　　　　　　　　　　　　　　　　　　　　　　　*Flagstaff, AZ*
- Closed **3,000+** support tickets with consistent SLA compliance by troubleshooting hardware, software, networking, and account issues.

PROJECTS

Super-Earth Warcaster | *SQLAlchemy, React/Vite, TypeScript* | warcaster.brodyengland.com　　　2025
- Achieved **real-time planet progress**, measured across **261** planets with **45s** refresh, by building a Python ETL (Postgres time-series), FastAPI layer, and React/Vite UI for Helldivers II.
- Ensured **public availability**, measured by **1,300** unique visitors, by deploying Docker Compose, strict CORS, Cloudflare Tunnel, and idempotent upserts with historical snapshots.

Timely | *Python, Flask, SQLite, JavaScript* | GitHub　　　　　　　　　　　　　　　　　2024
- Co-developed a **multi-user scheduler**, measured by login, class/event CRUD, and an interactive color-coded calendar, by building Flask routes/templates, SQLite models, and a FullCalendar UI.

Self-Hosted Server | *HTML/CSS, Nginx, Docker, Debian* | brodyengland.com　　　　　　　　　2023
- Published a **responsive portfolio**, measured by accessibility and SEO best-practice checks, by shipping project write-ups, code links, and a downloadable resume.
- Unified **service delivery** under one domain, measured by automated renewals and backups, by operating an Nginx reverse proxy, Dockerized apps, health checks, and per-service access control.

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript/TypeScript, SQL, Bash
Frameworks/Libraries: FastAPI, Flask, React, Vite, Tailwind, SQLAlchemy, PyTorch, TensorFlow, OpenCV
Systems/Tools: Linux, Git, Docker, Nginx, Postgres, SQLite, ROS, SLURM, Neo4j