

DARWIN SMITH

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EDUCATION

University of California, San Diego *B.S. in Math/Computer Science (Expected June 2026)*

TECHNICAL SKILLS

- **Languages:** Python, Java, C/C++, JavaScript (ES6+), C#, ARM Assembly, HTML/CSS, SQL, Bash
- **Frameworks/Libs:** FastAPI, Pandas, Seaborn, Matplotlib, BioPython, Scikit-Learn, IndexedDB
- **Tools & DevOps:** AWS, Azure, Git, GitHub Actions, Jupyter Notebooks, Jest, Playwright, JUnit, Vim, TeraTerm, STM32

TECHNICAL PROJECTS

Clinical Evidence Synthesis Engine | Python, FastAPI, OpenAI API, BioPython | Nov 2025 - Present

- Architected a **retrieval-augmented pipeline** using **FastAPI** to fetch and rank live clinical trials via PubMed, filtering **30+ studies per query** based on statistical relevance and demographics.
- Engineered a two-stage LLM workflow (**Worker/Writer**) to eliminate hallucinations, extracting structured **JSON metadata** from abstracts and synthesizing strictly cited narrative reports.
- Implemented demographic weighting algorithms to prioritize Randomized Controlled Trials (RCTs) over observational data, ensuring high accuracy outputs for specific user age groups.

Club Triton (Team Project) | JavaScript (ES6+), IndexedDB, GitHub Actions | Apr 2025 - June 2025

- Architected a robust **CI/CD pipeline** (**GitHub Actions, Jest, Playwright**) to automate builds, enforce code quality standards (**ESLint/Prettier**), and execute regression tests on every push.
- Developed core game engine logic handling state management and battle mechanics, while implementing **dynamic routing** for seamless page navigation.
- Led debugging efforts and cross-team integration, managing **weekly sprints** and **code reviews** in an Agile environment to resolve blocking issues.

Global Conflict & Defense Stock Analysis | Python, Pandas, Seaborn, Git | Sep 2025 - Dec 2025

- Engineered a data pipeline to harmonize daily stock vs. annual conflict datasets, solving granularity mismatches through **statistical aggregation** and cleaning of **20+ years of data**.
- Developed a composite “Defense Index” of top 5 US contractors to mitigate individual volatility, utilizing modularized Python scripts to decouple processing logic from analysis.
- Conducted multivariate EDA using **Seaborn**, identifying a strong positive correlation (**r = 0.67**) between conflict deaths and defense valuation, isolating confounders like the 2008 recession.

WORK EXPERIENCE

SiteHive | Test Engineer | San Diego, CA | Nov 2023 - Present

- Manage **US-based Quality Assurance** and final validation for hardware deployments, serving as the **key technical liaison** for an Australian IoT firm supporting major enterprise clients.
- Execute firmware updates and connectivity troubleshooting on Hexanode devices using **TeraTerm** and **STM32CubeProgrammer** to resolve network faults prior to delivery.
- Facilitate the domestic supply chain by receiving international technical shipments, diagnosing hardware defects, and **qualifying units** for final distribution to US customers.

UCSD | Shuttle Driver | La Jolla, CA | Oct 2023 - Present

- Maintained **20+ hour work weeks** concurrently with full-time studies, ensuring safe transit operations on fixed routes.