David Benjamin

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Education

Johns Hopkins University Baltimore, MD

B.S. in Computer Science | Minor in Entrepreneurship & Management | GPA: 3.92 *Expected May 2027*

Relevant Coursework: Artificial Intelligence, Data Structures, Algorithms, Software System Design, Full Stack Development, Programming in C/C++ on Linux, Deep Learning for Medical Imaging, Professional Writing and Communication

Experience

NASA – National Aeronautics and Space Administration May 2025 – Present

Software Engineer Intern *Greenbelt, MD*

- Reduced scheduling time for hundreds of telescope proposals from 7 days to under 1 hour by engineering a constraint-based reviewer assignment system (Google OR-Tools, Django) that enforced 20+ compliance, fairness, and workload constraints.
- Eliminated 100% of observed timeout failures in telescope review scheduling by implementing Celery + Redis for async orchestration, enabling continuous processing of multi-hour optimization jobs critical to proposal review.
- Improved fairness and accuracy in reviewer assignments through conflict-detection modules, including fuzzy name disambiguation (RapidFuzz) and coordinate resolution (Astropy), reducing bias and strengthening scientific integrity.

Meta – Major League Hacking Fellowship June 2025 – September 2025

Site Reliability Engineering Fellow *Remote*

- One of less than 2.5% accepted into Meta and MLH's 12-week Site Reliability Engineering fellowship, collaborating with Meta Production Engineers to design reliable, scalable, production-ready systems.
- Deployed production-grade portfolio website on Linux (DigitalOcean VPS) using Nginx reverse proxy, Docker containerization, and MySQL database; gained proficiency with Linux system administration and core networking concepts (HTTP, DNS, TCP/IP).
- Built CI/CD pipelines with GitHub Actions and implemented Prometheus/Grafana monitoring for real-time metrics, alerting, and incident response, enhancing performance troubleshooting, observability, and incident management skills.

Johns Hopkins Sports Analytics Research Group May 2024 – May 2025

Lead Software Engineer *Baltimore, MD*

- Directed a 9-person team to deliver the Atlantic League of Professional Baseball's first league-wide analytics platform, providing MLB-caliber data access and tool sharing that modernized team operations.
- Engineered and deployed an ETL pipeline (Pandas, AWS Lambda, Docker) and REST API (PostgreSQL, API Gateway) that democratizes 60K+ Trackman datapoints per game; now powering 10+ developers building 5+ statistical apps.
- Launched a full-stack web app (Next.js, TypeScript, Express.js, Tailwind CSS) centralizing analytics tools; adopted by 100+ coaches, analysts, and staff for data-driven decision-making.

HopHacks December 2024 – Present

Full Stack Software Engineer, Organizer *Baltimore, MD*

- Engineered a GitHub Actions–based CI/CD pipeline that fully automated website deployment, eliminating 100% of manual EC2 deployment steps and achieving zero-downtime releases through rsync + build promotion.
- Developed core full-stack features (React, Flask, MongoDB, S3) supporting 500+ hackers and judges, collaborating across 5 functional teams with Agile workflows to enhance registration, judging, and overall event experience.

Projects & Hackathons

ColdMap

- Built an AI-driven Palantir AIP dashboard integrating GPT-4o, Polars, and scikit-learn to analyze cryogenic shipment data, predict risks, and generate explainable insights for cell therapy cold chain logistics.

Alibaba Global E-Commerce Challenge (2nd / 500+ Global Teams)

- Built LEAP, an AR "view in your room" shopping app (React, Tailwind CSS, Google model-viewer), designed to integrate with Lazada and boost sales in developing markets by increasing purchase confidence.
- Earned 2nd place globally out of 500+ teams; pitched live at Alibaba HQ to 70+ engineers and executives, including C-suite leaders.

Brody Bot

- Automated 200+ hours of study room reservations for 20+ students at Johns Hopkins by developing a configurable Python + Selenium bot, bypassing booking limits with multiprocessing and coordinating concurrent bots with SQLite.

Skills & Interests

Programming Languages: Python, JavaScript, TypeScript, Java, C, C++, SQL, Bash
Frameworks & Tools: Docker, Git, GitHub, React, Next.js, Node.js, HTML, CSS, Pandas, NumPy
Cloud, DevOps & Testing: AWS, Linux/UNIX, CI/CD (GitHub Actions), Agile (Scrum), Testing (Unit, Integration, System, TDD), API Design
Interests & Activities: Pava Accelerator, Software Engineering Club, Phi Gamma Delta Fraternity, Golf, Lacrosse, Skiing