David Benjamin

610-955-1904 | davidnbenjamin15@gmail.com | davidbenjamin.dev | linkedin.com/in/davidbenj15 | github.com/DavidBenj15

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, Computing in Java, Computing in NumPy, Professional Writing and Communication

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, TypeScript, Java, C, C++, SQL, Bash
Frameworks & Libraries: React, Node.js, HTML, CSS, Pandas, NumPy, Next.js
Tools & Platforms: Linux/UNIX, AWS, Docker, Git, GitHub, Windows, Microsoft Office
Methodologies: Agile (Scrum), CI/CD (GitHub Actions), Testing (Unit, Integration, System, TDD), API Design

EXPERIENCE

National Aeronautics and Space Administration (NASA)   May 2025 – Present
Software Engineer Intern   *Greenbelt, MD*
- Built a constraint-based reviewer assignment tool with Google OR-Tools (CP-SAT) and Django, cutting space telescope proposal scheduling from 7 days to under 1 hour while meeting 15+ constraints on bias, workload, and compliance.
- Eliminated timeout failures by implementing asynchronous processing with Celery and Redis, enabling uninterrupted long-running constraint solver jobs and improving system reliability for users.
- Engineered multiple conflict-detection modules, including a name disambiguation system (RapidFuzz + heuristics) and a target coordinate resolver (Astropy), improving reviewer assignment accuracy and reducing bias.

Meta × Major League Hacking (MLH)   June 2025 – Present
Site Reliability Engineering Fellow   *Remote*
- Selected for competitive 12-week fellowship (acceptance rate less than 2.5%) under the direct mentorship of Meta Production Engineers, applying Software and Site Reliability Engineering practices.
- Deployed production-grade portfolio website on Linux (DigitalOcean VPS) with Nginx reverse proxy, Docker containerization, MySQL database, and CI/CD pipelines via GitHub Actions.
- Implemented Prometheus/Grafana monitoring stack for real-time metrics, alerting, and incident response; gained proficiency in Linux system administration and TDD practices.

JHU Sports Analytics Research Group   May 2024 – May 2025
Lead Software Engineer   *Baltimore, MD*
- Led a team of 9 to build the Atlantic League of Professional Baseballs's first league-wide analytics platform, introducing MLB-style advanced analytics access and tool sharing to modernize team operations.
- Democratized access to 60,000+ Trackman data points/game by deploying an ETL pipeline (Pandas, AWS Lambda, Docker) and REST API (PostgreSQL, AWS API Gateway); currently used by 10+ developers to build 5+ statistical apps.
- Built and deployed a full-stack web app with Next.js, TypeScript, Express.js, and Tailwind CSS to unify the discovery and use of analytics baseball tools; currently serving 100+ users.

HopHacks   December 2024 – Present
Full Stack Software Engineer, Organizer   *Baltimore, MD*
- Automated deployment for HopHacks website by designing a GitHub Actions CI/CD pipeline, reducing manual EC2 deployment steps by 100% and eliminating downtime via safe, zero-downtime rsync + build promotion strategy.
- Built core full stack features to support 500+ hackers and judges using React, Flask, MongoDB, and Amazon S3.

PROJECTS & HACKATHONS

Alibaba Global E-Commerce Challenge (2nd / 500+ Global Teams)
- Built an AR "View in Your Space" web app using React, Tailwind, and Google's <model-viewer> to boost Alibaba sales in developing markets.
- Selected as a finalist to pitch live to 70+ Alibaba engineers and executives; earned 2nd place globally out of 500+ teams.

ColdMap
- Built a Palantir AIP dashboard to visualize cell therapy shipment risks and contributing factors. Developed an ETL + logistic regression pipeline (Polars, scikit-learn) for risk prediction and explainability, integrating GPT-4o to surface insights, flag high-risk routes, and auto-draft alert emails.

Brody Bot
- Automated study room reservations for 20+ students at Johns Hopkins with a configurable Python + Selenium script.
- Bypassed user booking limits using multiprocessing; coordinated concurrent bots and handled race conditions using SQLite.

ACTIVITIES

Pava Accelerator, Software Engineering Club, Phi Gamma Delta Fraternity, Golf, Lacrosse, Lifting, Skiing