

Bryan Weber

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SUMMARY

Highly accomplished Backend Engineer with 15+ years of problem-solving experience in architecting, building, and scaling high-quality, data-intensive software solutions. Proven product mindset, dedicated to understanding and solving complex customer problems through robust backend infrastructure and APIs. Adept at driving innovation, owning the full software development lifecycle, and fostering collaborative environments. Passionate about building cohesive teams through servant leadership, supporting teammates, and fostering a culture of continuous process improvement.

EXPERIENCE

Senior Software Engineer

September 2025 – Present

Sphinx Defense

- Developing satellite communication software

Senior Software Engineer

August 2024 – September 2025

Hunted Labs | Early stage cybersecurity startup

- Architected and led the development of a **multi-source data pipeline and API** written in Go by combining deps.dev, FIRST.ORG EPSS (Exploit Prediction Scoring System), Google Maps API, and GitHub contributor data, enabling identification of developers and self-reported geographic locations to detect and mitigate **adversarial foreign influence** in open-source dependencies. Zero to MVP in less than 3 months.
- **Drove the integration of LLM/AI capabilities** into core product offerings, enabling natural language interaction with complex SBOM (Software Bill of Materials) and vulnerability data, thereby empowering both technical and non-technical users.
- **Led a team of 8 engineers** in the successful completion of a critical quarterly software release. Directed the full project lifecycle, from quality assurance to customer deployment, **delivering all pre-determined scope on schedule**.
- **Engineered a robust data pipeline** for GitHub Events API data, significantly reducing dependence on third-party vendors and enhancing the accuracy of source code provenance determination for critical security insights.

Staff Software Engineer

July 2022 – June 2024

Rebellion Defense | Growth-stage defense tech startup valued over \$1B

- **Led a team of developers** on a modular and scalable microservice-based system that processed **10s to 100s of thousands of sensor messages** for battlefield observability, built with Python, Golang, gRPC, and RabbitMQ.
- Spearheaded a one-month integration of machine learning algorithms for a \$1M/year contract, **increasing logistical planning efficiency** from dozens of variables per day to thousands per second.
- Served as the subject-matter-expert for ML-based task assignment algorithms, **successfully demonstrating advanced capabilities to the Chief Scientist of the Air Force** during a key contract close-out.
- **Integrated LLM-generated action report summaries** into adversary emulation software using the OpenAI API to create high-level overviews for non-technical stakeholders.
- Developed pipelines using Flyte, Kubernetes, and AWS EKS to **rapidly deploy ML models** for cyber-asset criticality assessment and automate training data generation.
- Championed developer productivity by implementing more efficient tools such as pantsbuild across three repositories for approximately 20 engineers, even **contributing features back to the open-source project**.
- Founding member of a cross-disciplinary team that developed initiatives to **cultivate a positive and inclusive company environment**.
- **Reviewed hundreds of code changes** for code quality from dozens of team members, focusing on customer value, team growth, and shared skill development.

Open Source Software Engineer

January 2022 – May 2022

Coiled Computing | Early stage SaaS startup making cloud management tools integrated with Dask

- Led performance improvements for Dask to load terabyte-scale Parquet data from cloud storage, influencing recommended settings to prevent out-of-memory errors
- Developed requested dashboard to display cluster status in Coiled client

Core Developer and Steering Committee Member

January 2014 – Present

Cantera Project | Open-source C++/Python library for continuum chemical simulations

- Migrated continuous integration infrastructure for automated tests and packaging from Travis CI and Appveyor to **GitHub Actions**.
- Developed and automated builds of Conda and PyPI packages for the Python C-extension using GitHub Actions, downloaded **1.5M+ times in 7+ years**.
- Maintained the unit, integration, and regression test suite to ensure reliability for scientific users, with **code coverage in excess of 75%** on the entire code base.
- Maintained SCons- and CMake-based build system for macOS, Linux, and Windows, supporting GCC, Clang, MSVC, and MinGW compilers.

Director of Undergraduate Studies / Assistant Professor in Residence

August 2014 – January 2022

University of Connecticut College of Engineering

- **Managed the deployment and maintenance** of a scalable JupyterHub instance for **200+ students**, standardizing the software base for courses and **dramatically reducing student issues** related to software installation.
- **Led 2-year development of new Mechanical Engineering curriculum** for over **800 undergraduate students**, balancing the needs of students, faculty, and industrial partners. Incorporated **modern computation for engineering** throughout the curriculum for the first time at UConn.
- **Mentored 10+ undergraduate researchers**, resulting in all students achieving **code merges in prominent open-source projects** for scientific computing.

Co-Chair, Small Development Grants Committee

January 2019 – January 2023

NumFOCUS | Non-profit supporting open-source scientific computing

- **Awarded up to \$95,000** three times annually to applicants from among NumFOCUS sponsored and affiliated projects. Evaluated up to 40 applications per round.
- **Organized and co-hosted decision meetings for 13 committee members** ensuring discussion of each application in the allotted time and each committee member contributed effectively.
- Provided **specific, actionable feedback** to projects not selected for funding, **fostering clear and supportive communication** to enable effective iteration for future funding rounds.

Freelance Author and Technical Reviewer

January 2019 – January 2021

Real Python | Providing real-world, high-quality Python learning resources

- Wrote **6 in-depth articles** averaging over **30,000 unique readers** per week.
- Covered basic to advanced topics in the Python ecosystem, including **Python main functions**, using **datetime** and **dateutil**, and the **enumerate function**.
- Articles featured on the **Python Bytes** and **Real Python** podcasts.

SKILLS

Programming Languages/Packages: Advanced Python | Intermediate Go | Basic C++ | NumPy | pandas | pytest | FastAPI | Pydantic

DevOps & Infrastructure: Docker | Kubernetes | PostgreSQL | Redis | Google BigQuery | Continuous Integration and Deployent (CI/CD) | AWS Cloud Platforms (EC2, S3, EKS) | Machine Learning Pipeline Development (Flyte, Dagster) | Git, GitFlow, GitHub, GitLab

Software Development: Software Design | Software Architecture | Project Management | Team Leadership | Code Review | Communication

EDUCATION

- Ph.D. in Mechanical Engineering — University of Connecticut, 2014
- B.S.E. in Aerospace Engineering — Case Western Reserve University, 2009