Brandon Wang

469-931-6958 ⋄ brandon.tx.wang@gmail.com ⋄ brandonwang.com
linkedin.com/in/~brandon/ ⋄ github.com/brandonwang1

Education

University of Pennsylvania **May 2024**

B.S. in Computer Science, B.S. in Economics (M&T Program) — GPA: 3.9

- **Awards:** HackMIT Hackathon Grand Prize, PennApps Hackathon 2nd Place, JHU Hackathon Grand Prize
- **Courses:** Operating Systems (A), Machine Learning (A), Algorithms (A), Computer Architecture (A+)

Technical Skills

- **Languages/Frameworks:** C++, Rust, Java, Python, JavaScript/TypeScript, Go, React/React Native, SQL, Bash
- **Data Science/ML:** PyTorch, Tensorflow, Keras, NumPy, Pandas
- **Cloud/DevOps:** AWS/GCP, Docker, Kubernetes, Linux, CI/CD, Terraform

Experience

Google **May 2022 — August 2022**

Software Engineering Intern (Advanced Technology & Projects) *Mountain View, CA*

- Led software development for prototype of a machine learning R&D project by integrating Large Language Models (LaMDA), graph neural networks for gesture recognition, and 6DoF real-time tracking algorithms.
- Increased performance by 5x from previous prototype by writing an ASGI multithreaded web server to read, transform, and stream tracking data at 120 Hz via websockets ***(Python, Typescript, Socket.io, Uvicorn, Firebase).***

Five Rings **January 2022 — February 2022**

Software Engineering Intern *New York, NY*

- Implemented improvements to infrastructure, messaging queues, and algorithms used for proprietary high-performance quantitative trading software and simulation engines (***C++, SQL, Python***).

Salesforce **May 2021 — August 2021**

Software Engineering Intern (Cloud Infrastructure) *San Francisco, SF*

- Designed a full-stack dashboard and API for monitoring multi-cloud infrastructure health and deployment status, spanning 600+ services across 15 Availability Zones ***(AWS, Python, Javascript, Jenkins)***.
- Developed DevOps tools for integrating build status data from multiple systems, identifying failing services, and launching automations for deployments, allowing issues to be detected and triaged 40% faster.

Bonfire **April 2021 — December 2021**

Cofounder/CTO *Philadelphia, PA*

- Building a cross-platform mobile app for young adults to meet others with shared interests via curated local activities and events. Published to the iOS App Store with 200+ users at launch and raised $1000+ in funding.
- Architected app frontend, backend, database, and CI tooling. Wrote 10k+ lines of code across 25 UI screens (***Typescript, React Native, Redux, Google Cloud, Github Actions***).

Penn Labs **September 2020 — May 2022**

Software Engineer *Philadelphia, PA*

- Manage CI/CD pipeline and Kubernetes clusters serving 100k+ users **(*CircleCI, Terraform, Grafana, Prometheus*)**.
- Designed and built Kittyhawk, an open-source Node.js library to automatically synthesize Kubernetes YAML configurations from reusable abstractions, allowing developers to configure deployments with 70% less code.
- Deployed Kittyhawk across 11 user-facing products at Penn Labs, increasing CI/CD reliability and deployment speed **(*Typescript, AWS CDK8S, Node.js*)**.

UT Southwestern Medical Center **June 2019 — September 2020**

Machine Learning Intern *Dallas, TX*

- Developed U-net neural network for automatic cell nuclei detection and segmentation in heart tissue ***(Python, Tensorflow)***, decreasing time required to analyze tissue samples from hours to under 30 seconds.
- Developed an algorithm to recorrect mislabeled medical imaging data using Data Shapley values, enabling top-1 label assignment accuracy of over 90% on sparsely labeled datasets ***(PyTorch)***.
- Co-first author of peer-reviewed paper published in *Circulation Research* Journal (ranked #3 globally), 2020 AAPM conference Blue Ribbon Poster Award winner, and Regeneron STS Research Competition Semifinalist.