

AAYUSH GANDHI

Baltimore, MD | (260) 409-4276 | aayushgandhi2001@gmail.com | [linkedin.com/in/gandhiaayush](https://www.linkedin.com/in/gandhiaayush) | github.com/AayushGithub

EDUCATION

Johns Hopkins University

Bachelor of Science: Major in Chemical and Biomolecular Engineering, Minor in Computer Science

Baltimore, MD

Aug 2019 – May 2023

GPA: 3.81/4.0 (Major GPA: 3.84/4.0) | Dean's List (2019-2023) | ChemBE Departmental Honors | General University Honors

Relevant course work: Object Oriented Software Engineering, Data Structures, Computer Systems Fundamentals, Artificial Intelligence, Genomic Data Science, Dynamic Modeling and Controls Design, Digital Systems Design, Transport Phenomena and Process Analysis

PROFESSIONAL EXPERIENCE

CraniUS LLC.

Lead Software Engineer

Baltimore, MD

May 2022 – Present

- Utilized Apple Push Notifications Service (APNs) and Django backend to implement a background payload delivery system for patient-facing iOS application. Implemented scalable frameworks for automated testing and deployment of over-the-air Device Firmware Upgrades (DFU), with high-frequency telemetry tracking for pub-sub based real-time progress updates. Obtained 2 utility software applications patents in the field of medical device communications and security algorithms.
- Developed Software-Bill-of-Materials generation and continuous monitoring platform for vulnerability troubleshooting, incorporating automated auditing and reviews, resulting in detection of > 150 critical vulnerabilities. Containerized into microservices with Docker for CI/CD with GitHub Actions and SonarQube for code-quality analysis, improving runtime by 300% and lowering costs by 450%.
- Architected high-throughput real-time data system for 35+ sensors, processing of 200M monthly data points. Constructed 25+ Grafana (SQL) dashboards, RabbitMQ/Celery-based distributed task queue, and Infrastructure-as-Code deployments with Terraform.

Centre For Nanomedicine at Wilmer Eye Institute

Undergraduate Research Assistant

Baltimore, MD

Apr 2020 – Dec 2022

- Won competitive Provost Undergraduate Research Award for work in computational manufacture of antibiotic-eluting sutures. Conducted and collected data points in reproducibility trials studying 10+ variables and dimensions affecting drug delivery.
- Pioneered a portable, Python/ElectronJS version of the Humphrey visual field analyzer test. Aided Dr. Kunal Parikh in systems validation and unit testing. Ran usability studies with 5+ Aravind Eye Care Vision centers in South India.

Incoggo

Software Engineering Intern (Python)

San Francisco, CA

May 2021 – October 2021

- Built dynamic landing page with GCP and Firebase, incorporating A/B testing capabilities and analytics tracking through Hotjar.
- Constructed Reddit-based Auto Reply bot for auditing comment and post data for Medium.com data links. Optimized runtime and addressed API timing issues with Redis caching and NoSQL database design, allowing for efficient scanning of 1200+ sources.

SurvivingBreastCancer.org Inc.

SEO and Web Development Intern

Boston, MA

May 2021 – October 2021

- Designed and executed Python-based sales optimization strategies, including API integration with Hunter.io and Google Search, resulting in the generation of over 20,000 usable leads and domain searches and 35% increase in successful outreach campaigns.
 - Implemented JSON-LD compatible database designs and SEO infrastructure to generate 45 optimized webpages while concurrently managing software reliability, resulting in a 50% increase of page indexing visibility and sitewide load time improvements.
-

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

VibeCheck

Co-Founder and Lead Software Engineer

Remote

Jan 2023 – Present

- Spearheaded creation of photo-centric iOS/Android app (Expo) built on community-driven location exploration and collaboration.
- Applied distributed computing system principles, agile operations with large teams, and system tooling expertise to guarantee functionality and cross-platform web technologies, resulting in an alpha testing phase boasting 25+ active users and 200 engagements.

Johns Hopkins University Residential Life

Resident Advisor

Baltimore, MD

Jan 2021 – May 2023

- Counselled over 150 students on academic & personal concerns, incident/maintenance requests, and roommate agreements.
 - Conducted weekly community building events, service projects, and professional development seminars. Managed administrative duties such as the interviewing and hiring of new Resident Advisors/Directors, budgeting, and international student orientation.
-

CORE COMPETENCIES

Technical Skills: Hypothesis Design, Cybersecurity Compliance, Contextual Research and Prototyping, Computational Optimization

Computing: AWS, Python, C/C++, Java, Docker/Kubernetes, JavaScript, Swift, Django, PostgreSQL, RPC Protocols, Redis, MongoDB

Languages: English (Native), Hindi (Native), Spanish (Conversational)