Pranav Badhe

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EDUCATION

Master of Science, Computer Science Aug 2022 – May 2024

Indiana University Bloomington, IN GPA: 3.9/4.0

- Courses: Functional Programming, High Performance Computing, Applied Machine Learning

Bachelor of Engineering, Computer Engineering Aug 2016 – Apr 2020

University of Pune, India GPA: 3.7/4.0

WORK EXPERIENCE

Graduate Research Assistant | Indiana University, IN Feb 2023 – Present

- Developed **Python library for** graphs and large-scale data processing yielding **27x speedup** against a popular library, PyG
- Optimized the library with 20+ multithreading experiments, achieving 10% faster training time using **Linux HPC** cluster
- Paper accepted in a globally **Top 16 publication** - ACM TheWebConf, 2024 with three coauthors, link: lnkd.in/dbuCwWEB

Software Engineer | eQ Technologic Dec 2020 – Jun 2022

- Engineered distributed systems for enterprise apps over **2 product generations**, implementing **100+ feature enhancements** using **test-driven development**, design patterns, and strict peer reviews for containerization on **GCP** and Azure
- Refactored legacy Java APIs to **Spring webservices** and pub/sub architecture, resulting in **35% performance boost**
- Appointed as **secondary lead** for flagship Business Intelligence product; integrated business object schemas with a unified data mode, enabling simultaneous data transfer across **SQL**, NoSQL and Graph database with extended **JDBC** and JMS
- Resolved critical **SaaS deployment** issues by optimizing **CI/CD pipelines**, Docker and IaC, **reducing downtime** by **15%**

Software Development Intern | DeeDee Labs Apr 2019 – Dec 2019

- Crafted interactive Unity games for amputees, reducing training time by 62% for adapting to their new prosthetic arm
- Managed development in **early-stage startup** to process high frequency arm movement data using C#, **shell scripts** and IoT

PROJECTS

Bioinformatics: Gene Regulation Analyzer

- National level Award-winning tool, to combine 3 complex sequencing processes in a single docker-based one-click solution
- Innovated a high-throughput software pipeline to parse large DNA datasets **reducing 40% execution time**
- Actively **used by 20+ researchers** and deployed at IISER Pune (a Government of India Institute) with minimal infrastructure

Open-Source: LLM Observability tool

- Enhanced ergonomics through rigorous code reviews for a **full-stack** ReactTS & Python backend app with **2.5k+ GitHub stars**
- Contributed consistently to **12 releases**, and upgraded framework for an **instrumentation** tutorial based on OpenTelemetry

Google Drive Clone

- Public cloud built using Google Cloud Storage, NoSQL, **ReactJS** and **Agile** methodologies with 2FA for file access control
- **Dockerized** deployment of **Flask backend** on GCP Cloud Build CI/CD serving RESTful APIs, and nightly test suite for reliability

SKILLS

- **Programming Languages:** Java, Python, C#, Racket
- **Technical:** Spring Boot, Microservices, Docker, RESTful APIs, Maven, Flask, Tomcat, Git
- **Cloud & Databases:** Google Cloud Platform, Azure Storage SDK, MySQL, OrientDB, Firestore

ACHIEVEMENTS

- MIT Computer Users Group, **Lecturer**: Hosted a workshop for **500+ students**, teaching **Linux** kernel utilities, OS, computer networks and open-source tools. Conducted workshop for **2 years**, sponsoring $2400 in funding
- Awarded **3rd place** for **university-wide hackathon** sponsored by Google Cloud