

ANMOL BARUWAL

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EDUCATION

Fisk University

2021 - 2025

Bachelor of Science: Computer Science

GPA: 3.84 / 4.0

WORK EXPERIENCE

Apple (San Diego, CA) | *Engineering Intern*

May 2024 - August 2024

- Developed and **optimized system software** for **AirPods** across multiple development platforms, applying **TDD** principles.
- Identified and **resolved** a critical **CI/CD pipeline** bug that bottlenecked over **200 engineers**, **reducing build times by 5%** and improving team efficiency.
- Coordinated with **5+ cross-functional teams** to align on feature updates and ensure the timely delivery of software releases.

Maroon (Nashville, TN) | *Software Developer Intern*

June 2025 - September 2025

- Architected and implemented a **real-time notification process** for an Android/iOS dating platform leveraging **Python (FastAPI)**, **Java**, AWS services (**SNS**, **Lambda**, **DynamoDB**).
- Managed** the development lifecycle, encompassing **API engineering** and **automated testing**, accelerating **product validation by 20%**.
- Developed a **robust automation suite** in Python, integrating seamlessly with the CI/CD workflow to ensure system reliability.

Vanderbilt University (Nashville, TN) | *Software Engineering Intern*

Jan 2025 - April 2025

- Automated IT** incident management by integrating **JIRA** ticketing, Statuspage, and MS Teams **APIs**, **reducing** manual effort by **30%**.
- Designed and developed a **RESTful API-driven deduplication mechanism**, refining the resolution process.
- Engineered dynamic component mapping within an **Agile framework**, boosting real-time incident transparency by **50%**.

Vanderbilt University (Nashville, TN) | *Web Development Intern*

Feb 2024 - April 2024

- Revamped** Vanderbilt University's IT website, **enhancing accessibility** and **user experience** through updated design and structure.
- Improved** the site's **user interface** to align with VU's latest **branding**, resulting in a **modern**, intuitive, and **visually appealing design**.
- Developed enhanced **self-service features**, including password updates and resets, leveraging **HTML** and **JavaScript** to improve user engagement and efficiency by **45%**.
- Collaborated with the design team using **Git** and **agile workflows** to integrate key features into the website, ensuring **cohesive functionality** and maintainability.

PROJECTS

DocuRAG

July 2025 - Present

- Engineered a **RAG pipeline** enabling semantic search and Q&A over PDFs using OpenAI embeddings and **FAISS vector search**.
- Built intelligent caching and **conversation memory** system implementing **MD5 hash-based** cache validation, maintaining 10-interaction context history, and **reducing processing time by 50%**.
- Developed a **modular Python architecture** for PDF processing and metadata tracking—paired with a **comprehensive testing** and evaluation framework using **RAGAS** and **LangSmith datasets** to ensure scalability, reliability, and performance optimization.

AI Profile Builder

March 2025 - July 2025

- Architected and deployed a full-stack, **serverless application** on **Google Cloud**, establishing an automated CI/CD pipeline with Cloud Build for rapid **feature delivery**, showcasing understanding of **microservices-oriented** architectures.
- Integrated the **OpenAI API** to **transform** unstructured resumes into **structured JSON** and rewrite content into high-impact, **STAR-method** achievements, enhancing users' job application quality.
- Built a polished, intuitive frontend with **React** and **TypeScript**, featuring a drag-and-drop uploader and **real-time feedback**.

Earthquake Aftershock Prediction Model

Jan 2023 - May 2025

- Engineered an **ETL pipeline** to process and **analyze large-scale** USGS GeoJSON earthquake data.
- Utilized Pandas** and **GeoPandas** for feature engineering during Exploratory Data Analysis (**EDA**) to classify earthquakes as mainshocks or aftershocks.
- Achieved **83% prediction accuracy** by implementing and validating **SVM** and **Logistic Regression** models.

SKILLS

Programming Languages: Python, Java, C++, JavaScript

Web & Frontend: React, FastAPI, TypeScript

Cloud & DevOps: GCP, AWS (Lambda, EventBridge, SNS), Docker, CI/CD, Linux, Bash, Git

Database & Backend: PostgreSQL, RAG, Prisma, Pandas, Numpy, Scikit-Learn