Mohammad Shafay Joyo

+1-929-433-7408 | shafay11august@gmail.com | LinkedIn | GitHub

Education

Columbia University **Sep 2023 - Feb 2025**

Masters, Computer Science

- **GPA:** 3.5/4.0
- **Coursework:** Design for Generative AI, Databases, Cloud Computing and Machine Learning, Human Computer Interaction, Deep Learning for Computer Vision

NED University **Oct 2019 - Aug 2023**

Bachelors, Computer Science

- **GPA:** 3.7/4.0
- **Coursework:** Data Structures & Algorithms, Parallel and DIstributed Computing, Operating Systems, Software Engineering

Technical Skills

- **Languages & Scripting**: Python, JavaScript, TypeScript, Go, C++, Bash, HTML, CSS
- **Frameworks & Tools**: React.js, Tailwind CSS, WebSockets, Flask, Github, PowerPoint, Next.js, Node.js, Django, FastAPI, ASP.NET, PostMan, Jira, Microservices
- **Cloud & DevOps**: Docker, Kubernetes, Jenkins, AWS, GCP, Azure, RESTful API, Linux, CI/CD, PostgreSQL
- **Data & Analytics**: SQL, MongoDB, Pandas, Excel, Redis, LLMs, NoSQL, Vertex AI, Oracle
- **AI Engineering**: Prompt Engineering, Model Tuning

Work Experience

Consult America Inc. **Jun 2025 - Present**

Software Engineer Intern *Ashburn, VA*

- Engineered full-stack features leveraging Python (via Flask) and Java technologies, modernizing legacy workflows while ensuring alignment with business objectives and enhancing user experience.
- Collaborated with QA, design, and business analysis teams in fast-paced Agile sprints to integrate technical solutions and gain insights for process optimization.
- Authored, tested, and maintained clean code using Flask and Docker, integrating REST APIs and resolving issues to boost system stability and performance.
- Launched production features that streamlined manual workflows by 30% and improved sprint velocity to 90%, showcasing an aptitude for rapid prototyping and deployment.

Nutanix **Jun 2024 - Aug 2024**

Member of Technical Staff Intern *San Jose, CA*

- Developed a real-time telemetry dashboard with React, TypeScript, and WebSockets to centralize system health metrics, demonstrating a capacity for designing efficient, data-driven tools.
- Optimized data flows by reducing API payloads by 30% and cutting debug cycle times by 40%, reflecting strong problem-solving skills applicable to AI efficiency enhancements.
- Presented performance improvements to senior leadership, resulting in the companywide adoption of the dashboard within two months and validating the solution's reliability in production environments.

Columbia University **Jan 2024 - Dec 2024**

Graduate Teaching Assistant *New York, NY*

- Guided students on projects involving CNNs, ViTs, GANs, and self-supervised learning, simplifying advanced concepts through labs and one-on-one support, resulting in improved student understanding
- Reviewed and optimized student Python/PyTorch code and UI for modelinspection tools, emphasizing readability and performance
- Raised average final project grades from 86% and increased students' confidence in debugging deep learning models, contributing to their academic success

Sapphire Consulting Services **Sep 2021 - Oct 2021**

Software Engineer Intern *Karachi, Pakistan*

- Created responsive PHP/JavaScript forms with live validation to eliminate dataentry errors and streamline user workflows
- Optimized frontend/backend interactions and refined HTML/CSS layouts, improving pageload speed by 25%
- Enhanced user satisfaction scores by 20% through continuous UI/UX improvements and performance tuning

Projects

NetGuard | Github

- Created NetGuard, a lightweight Dockerized tool for real-time packet sniffing using Python and Scapy

Distributed File System | Github

- Developed using Python and Flask, emphasizing fault tolerance and high availability under node failures

PurpleHire | Github

- Built PurpleHire Agent an AI-powered interview chatbot using Next.js, GPT40, to streamline hiring workflows

RealTime Data Pipeline | Github

- Built a WebSocket server in Go with message history, notifications, and a clean UI

SmartImageLabels | Github

- Built an automated image labeling tool using AWS Rekognition and S3 for object detection