

# Mohammad Shafay Joyo

+1-929-433-7408 | [shafay11august@gmail.com](mailto:shafay11august@gmail.com) | [LinkedIn](#) | [GitHub](#)

## Education

### Columbia University

*Masters, Computer Science*

Sep 2023 - Feb 2025

- **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

*Bachelors, Computer Science*

Oct 2019 - Aug 2023

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

## Work Experience

### Consult America Inc.

*Software Engineer Intern*

Jun 2025 - Present

Ashburn, VA

- Designed and developed full-stack features using Java, SpringBoot, and React to modernize legacy workflows and add customer-facing capabilities, aligning with product engineering goals for automation and data handling.
- Collaborated with QA, designers, and business analysts in fast-paced Agile sprints, ensuring technical solutions met business goals and supported reliable data pipelines.
- Wrote, tested, and reviewed clean, maintainable code using Flask and Docker; integrated REST APIs and debugged issues to enhance backend stability and support automation processes applicable to ML and energy systems.
- Delivered new production features that reduced manual workflows by 30% and increased team sprint velocity to 90%, demonstrating strong coding skills and effective CI/CD practices.

### Nutanix

*Member of Technical Staff Intern*

Jun 2024 - Aug 2024

San Jose, CA

- Built a real-time telemetry dashboard with React, TypeScript, ReactQuery, and WebSockets to centralize system health metrics, showcasing observability and robust data ingestion methods.
- Reduced API payloads by 30% and debug cycle times by 40% through streamlining data flows and optimizing UI rendering, emphasizing efficient backend data handling and automation.
- Presented performance gains to senior staff, leading to companywide adoption of the dashboard within two months and demonstrating proactive problem solving in a fast-paced startup environment.

### Columbia University

*Graduate Teaching Assistant*

Jan 2024 - Dec 2024

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

*Software Engineer Intern*

Sep 2021 - Oct 2021

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

## 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