Mohammad Shafay Joyo

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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

Work Experience

Consult America Inc.   **Jun 2025 - Present**
Software Engineer Intern   *Ashburn, VA*
- Designed and developed full-stack features using Java, SpringBoot, and React to modernize legacy workflows and enhance customer-facing capabilities, with an emphasis on scalability and security.
- Collaborated with QA, designers, and business analysts in fast-paced Agile sprints to define and deliver high-quality, well-documented software solutions.
- Wrote, tested, and reviewed clean, maintainable code in Flask and Docker; integrated REST APIs and debugged issues to improve system stability and performance.
- Delivered new production features that reduced manual workflows by 30% and increased team sprint velocity to 90% while following best practices in code versioning and collaboration.

Nutanix   **Jun 2024 - Aug 2024**
Member of Technical Staff Intern   *San Jose, CA*
- Built a real-time telemetry dashboard using React, TypeScript, ReactQuery, and WebSockets to centralize system health metrics, aligning with modern software development practices.
- Optimized data flows by reducing API payloads by 30% and debug cycle times by 40%, contributing to performance improvements and robust user interface delivery.
- Presented performance gains and system improvements to senior staff, facilitating companywide adoption of the dashboard within two months and promoting agile collaboration across teams.

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