AYUSH MEHTA

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EDUCATION

Master of Science in Computer Science Expected Graduation: June 2026
Seattle University Seattle, WA
***Courses**: Distributed Systems, SAAS, Software Architecture & Design, Security in Computing*

Bachelor of Technology in Information Technology August 2019 - May 2022
MIT Arts, Design & Technology Pune, IN
***Courses:** Data Structures & Algorithms. OOP, Database Management System, Web development, Artificial Intelligence*

SKILLS

- **Programming & Databases:** Python, Java, JavaScript, TypeScript, Go, C++, Bash, C#, SQL, PostgreSQL, MySQL, MongoDB, DynamoDB
- **Cloud & AI:** AWS, GCP, Azure, REST APIs, SOAP, GraphQL, Microservices, Machine Learning, TensorFlow, PyTorch, OpenCV, LLMs, NLP
- **Frameworks & DevOps:** Flask, Django, Spring Boot, Node.js, React.js, Next.js, .Net, Git, Docker, Jenkins, Kubernetes, Kafka, CI/CD, Linux
- **Principles & System Design:** Agile, Scrum, OOPs, SDLC, OS, TDD, Data Structures, Algorithms, UI/UX Design, Full Stack, Unit Testing, MS Office

WORK EXPERIENCE

Software Engineer | Resilinc Solutions Pvt Ltd July 2022 – August 2024

- Developed a **Custom Assessment** module using **Python, Flask,** and **SQLAlchemy**, automating multi-language data downloads for over 1,000 files per day, lowering processing time by 60%, and enabling 30% higher user concurrency.
- Designed a high-performance Python-based framework leveraging **Redis caching** and **asynchronous processing**, reducing error rates by 40%, scaling traffic handling by 1.5x, and optimizing response times for 10,000+ daily users.
- Managed the end-to-end lifecycle of tenant data for 80+ clients, implementing data pipeline optimizations with **Pyspark and PostgreSQL**, incorporating customer feedback, and achieving a 60% increase in satisfaction ratings through post-implementation surveys.
- Optimized aggregation requests and query performance by restructuring **SQL queries**, indexing key tables, and leveraging caching strategies, reducing computing time by 30%, enabling faster subscriber reporting, enhancing data retrieval speeds and user experience.
- Revamped a dynamic supply chain analytics dashboard using **TypeScript, React,** and **MongoDB,** enabling real-time data visualization for 80+ clients, reducing decision-making time by 35%, and improving risk assessment accuracy.

Python Developer | Resilinc Solutions Pvt Ltd April 2022 – August 2022

- Engineered Python scripts with **REST API** integrations to automate data workflows, filtering 500,000+ records monthly from real-time streams, improving team productivity by 20% and ensuring 95% data accuracy.
- Enhanced task tracking and workflow automation using **Jira, GitLab CI/CD,** and **Agile methodologies**, ensuring seamless coordination across 5+ teams, improving milestone delivery efficiency by 30%, and enhancing stakeholder communication.
- Diagnosed and resolved three critical application bottlenecks by profiling performance with **Flask** and **SQL query optimizations**, boosting ecosystem efficiency by 30% and cutting system downtime from 12 hours to 2 hours weekly.
- Organized and implemented modular code components with scalable design patterns, **Dockerized microservices**, and detailed documentation, reducing new developer onboarding time by 40% and accelerating feature deployment by 20%.

Cyber Security Intern | S3 Infotech Pvt Ltd February 2022 - April 2022

- Conducted **vulnerability assessments** using **Nessus, Burp Suite,** and **OpenVAS**, identifying and mitigating 50+ critical security flaws, ensuring ISO compliance, and reducing security risks by 70%.
- Executed penetration testing on 5 high-priority applications leveraging **OWASP Top 10 methodologies**, uncovering 15+ vulnerabilities and reducing resolution times by 40% through automated security monitoring.
- Led web application security assessments utilizing **Burp Suite, Nmap,** and **Nikto**, detecting 50+ vulnerabilities and driving remediation strategies, enhancing threat detection accuracy and cutting security risks by 40%.
- Directed secure code reviews with **SAST tools** and **DevSecOps pipelines**, identifying 15+ weak scripting patterns and enforcing secure coding principles, ensuring compliance and system integrity.

PROJECTS

Image Processing System | Seattle University (link) March 2025

- Spearheaded and deployed a **gRPC-based** image processing system using **Python, gRPC, and Pillow**, enabling efficient remote image transformations such as flipping, rotating, resizing, and grayscale conversion.
- Planned a modular architecture using the **Pipe & Filter pattern**, ensuring seamless extensibility and supporting multiple transformations in a single request, improving system efficiency by 40%.
- Facilitated easy UI integration, allowing the system to be used with **web applications**, **mobile apps**, and **CLI tools,** making image processing accessible across different platforms.

Real Time Object Detection | MIT ADT University (link) April 2022

- Built a synchronous object detection system with the help of **Python, OpenCV**, **TensorFlow**, and **SSD** to address the challenge of accurate tracing in resource constrained environments, declining computational overhead by 30% and elevating competence for safeguarding and autonomous networks while confirming high detection correctness.
- Projected and implemented a lightweight **deep learning model** upgraded for low-power devices, improving asset utilization by 35% and ensuring seamless integration with existing infrastructure across multiple platforms.
- Applied advanced object detection **algorithms** using TensorFlow and OpenCV, enhancing system robustness in high-traffic environments, increasing detection accuracy by 25%, and improving real-time **decision-making** for surveillance, traffic analysis, and automated inspections.