Shreyansh Raj

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AWS Certified Developer with 5 YOE building scalable, high-performance systems on Python, React, and AWS.

Professional Experience

Software Engineer, Arizona State University   **Nov 2023 – Present**

- **Spearheaded deployment of inventory management software** for 1000+ students with class-based access, saving 2000+ man-hours annually.
- Designed **dashboards with Tableau for the ASU leadership** to track inventory and soundstage usage, optimizing scheduling and **generating $15K+ revenue**.
- Configured shift-publishing software for 20 student workers across 2 campuses, eliminating manual scheduling and **saving $20K annually**.
- **Developed real-time facial recognition system with AWS** and OpenCV, reducing manual video review workload by 90%.
- **Technical Stack**: React Native, AWS (EC2, S3, Lambda), Python, JavaScript, Google APIs, Tableau

Senior Software Developer, Tata Consultancy Services   **March 2022 – July 2023**

- Engineered scalable SAP systems and **REST APIs for Apple**, **cutting integration issues 30%** and improving data consistency across enterprise applications.
- Developed high-performance Python/SQL ETL pipelines, **accelerating data processing 45%** and streamlining workflows across SAP and non-SAP systems.
- Architected **fault-tolerant backend infrastructure ensuring 99.9% uptime** while cutting incident recovery time from hours to minutes.
- Delivered **full-stack solutions with enhanced CI/CD pipelines**, **boosting deployment frequency 25%** and reducing release overhead.
- **Technical Stack**: Python, SQL, REST APIs, SAP Integration, Microservices, Docker, Kubernetes, CI/CD, Git

Software Developer, Infosys Limited   **Jan 2019 – March 2022**

- **Automated code checks and post-deployment validation processes**, saving 20% project time and reducing defects 35%.
- Engineered APIs and Python scripts to enhance performance and maintainability, **cutting bug resolution time by 40%.**
- **Spearheaded development of a data migration tool for Roche Pharma**, handling up to 1M+ records weekly, saving 500+ man-hours and $50K+ annually.
- Optimized backend systems for real-time data and reporting, **halving query response times and improving reporting efficiency 30%.**
- **Built backend systems for Coca-Cola**, enabling scalable enterprise solutions used by North America and EU teams.
- **Technical Stack**: Python, SQL, REST APIs, Jenkins, Git, Shell Scripting, SAP HANA DB, Agile

Education

Master of Science – Computer Science, Arizona State University	GPA 3.6	**May 2025**
Bachelor of Technology – Information Technology, Maharaja Agrasen Institute of Technology	GPA 3.4	**Sep 2018**

Projects

CAB TRAJECTORY VISUALISATION | ASU   **Feb 2024 - May 2024**

- **Developed an ML model** analyzing 2 months of cab data to forecast high-demand pickup locations and frequent routes.
- Built interactive route visualizations with D3.js and Google Maps API, enabling city officials to improve traffic planning.
- Processed and cleaned large cab datasets using Python and Pandas, ensuring data accuracy and reliability for modeling.
- Evaluated model accuracy with regression techniques, **improving prediction precision by 25%.**
- **Tech Stack**: Python, Pandas, JavaScript, HTML, CSS, D3.js, Machine Learning (Regression), Google APIs

REAL-TIME FACE RECOGNITION ON AWS CLOUD | ASU   **Sep 2024 - Nov 2024**

- Developed a cloud-based facial recognition application using OpenCV to process CCTV footage in real time.
- Deployed on AWS EC2 with S3 for storage and Docker for containerization, ensuring scalable and reliable performance.
- Implemented AWS Lambda and Auto Scaling groups to dynamically adjust compute resources based on workload demand.
- Integrated AWS SQS for event-driven processing, reducing manual monitoring and **improving system efficiency by 80%.**
- **Tech Stack**: AWS (EC2, SQS, S3, Lambda, Auto Scaling), Docker, Boto3, OpenCV, Python

Skills and Certifications

Certification: AWS Certified Developer Associate
Languages: Python, Java, JavaScript, SQL, React.JS, HTML, CSS, TypeScript
Frameworks/Libraries: Node.js, three.js, React, D3.js, Pandas, OpenCV, RestAPI, JUnit, GIT, JIRA
Cloud/DevOps/Databases: AWS, Docker, CI/CD pipelines, PostgreSQL, MongoDB, MySQL