Maahir Sidhu

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PROFESSIONAL SUMMARY

Detail-oriented Software Engineer with strong analytical skills and hands-on experience in Python, Java, and SQL for developing and optimizing algorithms, data-driven systems, and automation pipelines. Skilled in debugging, testing, and ensuring data integrity across large datasets. Adept at collaborating with cross-functional teams to deliver accurate, high-performance systems.

EDUCATION

Western University **Sept. 2020 - Dec. 2024**

Bachelor's of Science in Computer Science

WORK EXPERIENCE

Frontline Managed Services **Toronto, Ontario**

IT Analyst *May 2023 - Present*

- Developed automation and monitoring pipelines (Python, PowerShell, AWS) to optimize distributed infrastructure workflows and reduce manual troubleshooting time by 25%.
- Built observability and alerting systems for distributed, cloud-hosted environments, improving service uptime by 15% and supporting continuous model/inference pipeline reliability.
- Built and integrated ServiceNow workflows, optimizing ticket triage and resolution processes, which improved SLA compliance by 20%.
- Collaborated with cross-functional engineering teams to enhance internal IT applications for 500+ employees, improving efficiency and user adoption of cloud-based tools.
- Strengthened reliability of cloud-hosted applications (AWS, SaaS, O365) by diagnosing performance bottlenecks and implementing fixes that improved availability.

PROJECT EXPERIENCE

VisionPi: Real-Time Object Detection System (View)

- Built a Raspberry Pi–based real-time object detection system in C++/OpenCV, reducing detection lag by 40% for responsive monitoring.
- Integrated a REST API and web interface enabling remote feedback and live camera monitoring.
- Designed a data storage pipeline for logging results, supporting future analytics in security and robotics use cases.

UWO Spell Checker (View)

- Engineered a Java-based spell checker with trie data structures and edit-distance algorithms, improving accuracy from 70% → 91% on a dataset of 10,000+ words.
- Developed an interactive GUI application, enabling users to correct documents in real time and increasing editing efficiency.
- Enhanced system scalability for larger text inputs by optimizing memory and algorithm performance.

Car Price Prediction Using Machine Learning (View)

- Trained ML models (Random Forest, Linear Regression) to predict car prices with 85% accuracy, providing sellers with data-driven pricing recommendations.
- Performed feature engineering, preprocessing, and exploratory data analysis, improving model robustness and reducing overfitting.
- Published project with visualizations, documentation, and reproducible code, making it accessible for community adoption.

SKILLS

Languages & Frameworks: C++, Python, Java, JavaScript (React), SQL, HTML, CSS

Development Tools: Git, GitHub, VS Code, IntelliJ, JIRA, Docker, PowerShell, Bash, Visual Studio

Software Engineering Concepts: Object-Oriented Programming (OOP), Data Structures & Algorithms, API Development, Design Patterns, Debugging, Unit & Integration Testing, Version Control, Code Review

Databases & Cloud: MySQL, PostgreSQL, AWS (EC2, S3, CloudWatch), Azure (familiar), RESTful Web Services, JSON

DevOps & CI/CD: GitHub Actions, Jenkins (familiar), Docker Containers, Agile/Scrum Methodology

Performance & Automation: Scripting (Python, PowerShell), System Monitoring, Troubleshooting, Benchmarking, Log Analysis