

Shashwat Murawala

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EDUCATION

University of Waterloo

Sept. 2022 – April 2027

Bachelor of Computer Science and Psychology Double Major with Cognitive Science Minor

EXPERIENCE

Software Engineer

May 2025 – Aug. 2025

Auckland, New Zealand

Rocket Lab

- Designed and implemented an active pinging system integrated with a four-level Grafana dashboard, using Prometheus to monitor real-time infrastructure availability and automatically flag outages for instant detection.
- Contributed to the development of a custom serialization package and optimized its encoder and decoder, reducing per-operation time by 25% and 80% respectively.
- Contributed to the development of a high-performance internal messaging and streaming service, achieving 80% faster throughput compared to NATS for internal use cases.
- Developed and implemented a C# WPF desktop application for real-time data visualization and animated overlays, used in Rocket Lab's YouTube livestreams during launches to display data and key milestones.

Software Developer

May 2024 – Dec. 2024

Toronto, Ontario

Dayforce

- Developed and implemented end-to-end integration testing for the Hyperscale Next-Gen application, ensuring reliability, identifying critical bugs early, and reducing QA cycles by 20%.
- Supported and contributed to the development of a Kafka-based system as part of the Hyperscale project, which increased data processing capacity by 60% and reduced processing time by 40%.
- Remediated 250+ security vulnerabilities identified by Veracode and SonarQube, ensuring compliance with industry standards and improving application security and code quality by 35%.

Cloud Engineer

May 2024 – Dec. 2024

Waterloo, Ontario

WATonomous(WATCloud Division)

- Automated the deployment and management of over 100 cloud resources using Terraform and Ansible, improving infrastructure provisioning time by 40% and reducing manual intervention by 70%.
- Designed and implemented 5+ CI/CD pipelines for integration and deployment, utilizing Kubernetes and SLURM, resulting in a 30% increase in deployment speed and 20% decrease in downtime.
- Managed and scaled HPC infrastructure with 99.9% uptime, applying Infrastructure as Code (IaC) with Kubernetes and SLURM across 200+ Linux-based systems, reducing operational costs by 15% through resource optimization.

Data Analyst

May 2023 – Aug. 2023

Aurora, Ontario

JANA Corporation

- Developed a tool in Python, resulting in a 40% reduction in manual data processing efforts.
- Conducted in-depth data analysis for SIMP-CRA Model resulting in a 25% increase in data retrieval and processing speed, leveraging Python and SQL.
- Automated ETL processes for MidAmerican TIMP, reducing data processing time by approximately 30% and improving overall efficiency.

PROJECTS

Pathfinding Visualizer | JavaScript, React, HTML, CSS

- Engineered a real-time visualization system for analyzing and comparing multiple pathfinding algorithms.
- Implemented an intuitive, user-friendly interface to visualize algorithm progress and decision-making live.

SKILLS

Developer Tools: Git, IntelliJ IDEA, Postman, MongoDB Compass, Jupyter Notebook, SwaggerUI, Veracode

DevOps Tools: Grafana, Kubernetes, ArgoCD, TeamCity, Docker, Apache Kafka, Jenkins, Terraform

Languages: Go, C++/C#, Python, C, PromQL, SQL, JavaScript, TypeScript, HTML/CSS, LogQL, LINQ

Libraries & Frameworks: React, WPF, Angular, Express, jQuery, Bootstrap, pandas, OpenCV, TensorFlow, Flask