Keshav Worathur

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Education & Certifications

Master of Science in Computer Science	Aug 2025. - Present
Georgia Institute of Technology	Atlanta, GA

- Relevant Coursework: Big Data Systems, Machine Learning

Honours Bachelor of Science in Computer Science	Sep 2020. - Jun . 2024
University of Toronto	GPA 3.94/4; Dean's List	Mississauga, ON

- Relevant Coursework: Machine Learning, Scalable Computing, Intro to Databases

AWS Certified Solutions Architect - Associate	Apr. 2025

ASTQB Certified Tester Foundation Level	Sep. 2024

Awards

Best Poster Award - UTMSU Undergraduate Research Symposium	Apr. 2024

- Awarded the best poster award and a prize of CAD $1,000\$$ for poster presenting work on training deep learning models for Brain Tumor Classification.

Experience

QA Automation Specialist	Jul. 2024 - Aug. 2025
Lenovo Testing Center of Excellence (TCOE)	Toronto, ON

- Designed an automation framework using **Playwright** for end-to-end testing of Freedom Mobile's (client) wireless consumer applications, reducing QA regression execution time per release by $\sim$ 80 hours.
- Streamlined the QA process for AWS microservice migration via targeted **combinatorial testing**, coordinating with non-technical stakeholders (credit analysts) to troubleshoot high-priority defects.
- Trained a team of ten manual testers in **Jenkins** for automated script execution, enhancing team productivity.

Computational Research Assistant	Aug. 2024 - Jul. 2025
Gene2Lead	Toronto, ON

- Constructed optimized data pipelines in **PyTorch** that expedited feature extraction from terabyte-scale protein data by 32%, accelerating downstream analysis for a research team of medicinal chemists.

Cloud Developer	Jan. 2024 - Jul. 2024
Simple IT Firm	Toronto, ON

- Automated the extraction of information from personal and corporate tax returns using AWS **Lambda** and **Textract**, decreasing manual loan review time by 8% and accelerating the overall loan approval workflow.
- Released custom web scraping tools to extract FAQ data from eight company websites and store the data in a **vector database** for fine tuning AI chatbot applications.

Personal Projects

PaintParty	Javascript, AWS (Lambda, DynamoDB)	Code	Nov. 2023 - Dec. 2023

- Developed a web application for thousands of users to simultaneously paint pixels of a large canvas, broadcasting updates to all users in real-time using a **WebSockets** API.
- Leveraged AWS serverless services such as **Lambda** and **API Gateway** to scale the system to 150k+ users, achieving canvas update latency of less than one second for 95% of users.
- Automated provisioning of networking, storage, and compute resources using a **CloudFormation** template, reducing time to launch the system by 60%.

Deep Learning-Based Brain Tumor Classification	Poster Link	Sep. 2023 - Dec. 2023

- Collaborated with a team of three researchers to develop an automatic tool for brain tumor classification using a custom CNN architecture.
- Engineered a custom data processing pipeline in **Tensorflow** for processing 2D slices of MRI scans in batches.
- Explored approaches for visualizing the model's decision-making processes using state-of-the-art techniques such as GradCAM.