

AMIR KESHTKAR

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EDUCATION

Western University, London, Ontario, Canada Sept 2019 – Apr 2024

Bachelor of Engineering Science (BESc) — Software Engineering (Co-op)

- Graduated with Distinction; Dean's Honour List
- Strong performance in Electrical & Computer Engineering courses including Embedded & Real-Time OS (87%), Intro to Electrical Engineering (85%), Digital Logic Systems (85%), Microprocessors & Microcomputers, and Networking
- Additional relevant coursework includes Algorithms & Data Structures (100%), Operating Systems, Artificial Intelligence I & II, and Machine Learning

PROFESSIONAL EXPERIENCE

J.D. Power - Remote

Software Engineer (Intermediate)

Nov 2025 - Present

- Updated and standardized **architectural design documents**, recreating system diagrams, and introducing **version-controlled documentation** to improve collaboration and traceability.
- Researched modernization strategies to upgrade an enterprise application from **Java 8 → Java 21** and **Spring 4 → Spring 7**, evaluating risks, compatibility, and migration approach.

Software Engineer (Junior)

May 2024 - Nov 2025

- Owned backend deliverables across releases, including independent execution during teammate absences to maintain delivery timelines.
- Implemented **new serializers** while maintaining **backward compatibility** across legacy API versions (SOAP + REST).
- Led a service integration migration from **SOAP → REST**, improving maintainability and reducing legacy coupling.
- Diagnosed and resolved **production issues** and improved **regression and performance testing tooling** in partnership with architects and QA.
- Delivered net-new functionality, including **transactional workflows** and **REST endpoints**.
- Developed **Python automation scripts** leveraging **kubectl** to simplify Kubernetes deployments and lower the operational barrier for engineers with limited Kubernetes experience.
- Built **Go-based monitoring utilities** to validate DNS availability and integrate with **Prometheus and Grafana**, improving alerting reliability and observability.

Software Engineer Intern

May 2022 - Sept 2023

- Contributed to production releases; ramped to independent ownership of **50%+ of release tickets** toward the end of internship.
- Mentored new interns on **Java, GitLab, Docker, and JIRA**, and created onboarding docs that reduced ramp-up time.

Tech Stack: Java, Spring, Python SOAP/REST, JUnit, Mockito, OAuth2, Jenkins, GitLab CI/CD, Docker, Kubernetes, Ansible, MySQL, Solr, Tomcat

PROJECTS ACCOMPLISHED

Embedded Systems Laboratory

Western University · Jan 2024 – Apr 2024

- Implemented **pre-emptive multitasking** using uC/OS-II with real-time scheduling and task coordination.
- Designed interrupt-driven execution using hardware timers to support periodic and event-triggered behaviour.
- Developed **PWM-based closed-loop PID control**, integrating ADC sensor feedback on a microcontroller platform to stabilize a physical control system.
- Analyzed timing performance, task switching, and system stability, reinforcing real-time execution principles.

Automated Assignment & Assessment Platform
2025

Software Engineer / Project Manager · Chapman University · Aug 2023 – Apr 2025

- Designed and built a **full-stack platform** to automate assignment distribution and grading workflows for **500+ students and faculty**.
- Implemented a **gRPC-based backend service** for Excel file processing, enabling low-latency data ingestion and computation.
- Integrated backend services with a **TypeScript / Next.js frontend**, ensuring reliable data flow and a responsive user experience.
- Built **CI/CD pipelines** using GitHub Actions and Docker to automate testing, deployment, and release versioning across environments.

Tech Stack: C#, ASP.NET, gRPC, TypeScript, Next.js, Node.js, GitHub Actions, Docker

AI RAG Web App for Home Retrofitting
2024

Team Lead / Developer · Western University (RBC Capstone) · Sept 2023 – Apr 2024

- Led a **4-person engineering team** to design and deliver a web application providing data-driven home retrofit recommendations.
- Designed system capable of delivering computation-driven real-world recommendations, emphasizing **system design, reliability, data integration, and structured workflow execution**.
- Led architecture decisions and ensured controlled execution behaviour.

Tech Stack: TypeScript, Next.js, OpenAI API, Supabase

Cancer Detection with CNN

Team Lead / Developer · Western University · Sept 2023 – Apr 2024

- **Led the development and training of deep learning models** (Inception V3, NASNet Mobile) on the LC25000 histopathology dataset, achieving **99% classification accuracy**.

Tech Stack: Python, TensorFlow, Keras, NumPy, Pandas

- ACTIVITIES & INVOLVEMENT
- Western Engineering Society — First-Year Engineering Representative - Supported student engagement initiatives and represented first-year engineering interests.
 - Dean’s Honour List Recipient
 - Lorraine Ivey Shuttleworth Scholarships

TECHNICAL SKILLS

Embedded & Systems: RTOS concepts, interrupts, timers, multitasking, PWM, PID control, sensor integration, timing analysis

Systems & Architecture Foundations: Digital logic, microprocessors, networking fundamentals, OS principles, concurrency

Programming & Tools: C/C++ (academic), Java, Python, Go, TypeScript

Reliability & Observability: Prometheus, Grafana, debugging & diagnostics tooling

Cloud & Infrastructure Exposure: Kubernetes, Docker, CI/CD pipelines

Computing Intelligence Foundation: AI/ML fundamentals (academic exposure; used in applied projects)