Mohammad Mahdi Kheirkhah

mahdikheirkhah060@gmail.com | +3584573482021 | Mariehamn, Åland Islands

Summary

Full-stack developer with a B.Sc. in Computer Engineering and ongoing training at Grit:lab. Skilled in building scalable applications using Java (Spring Boot), Go, JavaScript frameworks like Angular and Vue.js, and databases like MongoDB. Experienced in microservices architecture, real-time features with WebSockets, and optimization algorithms. Seeking opportunities to apply problem-solving skills in dynamic tech environments.

Profiles

LinkedIn: https://www.linkedin.com/in/mohammad-mahdi-kheirkhah-a0847b308/

GitHub: https://github.com/mahdikheirkhah

Skills

- **Backend:** Java (Spring Boot), Golang, Python, C/C++
- **Frontend:** JavaScript, TypeScript, Angular, Vue.js, HTML, CSS
- **Databases:** SQL (Microsoft SQL Server), NoSQL (MongoDB)
- **Development & Tools:** Git, Docker, Kafka, Rest APIs, GraphQL
- **Other:** Embedded Systems (Arduino, AVR), Enterprise Architecture, Microprocessors

Education and training

Student, Further Vocational Qualification in ICT | **Grit:lab** (Mariehamn, Åland) *Sep 2024 – Aug 2026*

- Intensive, project-based learning focused on Go, JavaScript (Vue, Angular), and Java (Spring Boot, Microservices).
- Emphasizes practical problem-solving, teamwork, and self-directed learning.

Bachelor of Science, Computer Engineering | **University of Kashan** (Kashan, Iran) *Oct 2019 – Sep 2024*

- **Core Skills:** Algorithm Design & Analysis, Data Structures, Object-Oriented Programming (C++), Database Management (SQL), Operating Systems, Computer Networks, Internet of Things (IoT).
- **Specialized Coursework:** Microprocessors & Assembly, Data Mining, Compiler Design, Optimization.
- **Final Year Project:** Developed an evacuation planning optimization model using the NSGA-II algorithm in Python.
- **Teaching Experience**: Teaching Assistant – Data Structures Course

Projects

- **Evacuation Planning Optimization:**
  - Optimized model with NSGA-II in Python, tuning hyperparameters via genetic algorithms

Java & Spring Boot Projects

- **buy-01 (E-commerce Microservices):**
  - Architected and developed a microservices-based e-commerce platform using **Java**, **Spring Boot**, and **MongoDB** on the backend and Angular for the frontend.
  - Implemented **Eureka** for service discovery, **Kafka** for asynchronous request handling, and an **API Gateway** to manage and route traffic

JavaScript & Full-Stack Projects

- **social-network:**
  - Created a full-stack social network application (similar to Facebook) using **Vue.js** for a dynamic, reactive frontend and **Go** with **SQLite** for the backend.
- **real-time-forum:**
  - Upgraded my last Go-based forum project to feature real-time communication by integrating **WebSockets**, allowing for live updates without page reloads.
- **bomberman (Custom Framework):**
  - Built a real-time multiplayer Bomberman game using a custom-built JavaScript framework for state management, routing, and events.
  - Powered the backend with **Go** and **WebSockets** for live connectivity.
- **GraphQL:**
  - Built a JavaScript frontend application to query a GraphQL endpoint, constructing proper requests with query bodies to fetch dynamic data sets efficiently.
  - Integrated SVG for rendering custom charts, including line charts for time-series data and radar charts for comparative analysis, enabling interactive visualizations.

ongoing learning

- Deepening foundational knowledge in mathematics, calculus, and statistics to support data-driven programming and machine learning initiatives.
- studying quantitative finance concepts, including portfolio optimization, risk management, and algorithmic trading.
- Exploring neural networks and reinforcement learning, focusing on applications in predictive modeling and decision-making systems.

Languages

- **Persian**: Native
- **English**: advanced