Hamad Al-Ghanim

Kuwait · hamadalghanim.com

Skills

Languages:	Python, C++, Java, Ruby, Dart, JavaScript, C#, Go, Coq
Frameworks:	PyTorch, Django, Flask, Ruby on Rails, Vue.js, Flutter, .NET Core
Tools:	LLVM, Git, Microsoft SQL Server

Experience

Phinests Kuwait
Co-Founder & Part-Time CTO **Apr 2019 - Present**

Led and managed a development team to design and implement scalable APIs for a Ruby on Rails backend with a service-oriented architecture, while developing and implementing testing protocols to ensure code reliability and system maintainability, and directing the development of the Flutter mobile application.

Kuwait Oil Company Kuwait
Systems Analyst **Feb 2017 - Present**

Led the modernization of drilling workflows, migrating from Excel spreadsheets and email-based processes to a Microsoft SQL Server and .NET Core ASP web framework C# solution, while developing responsive web applications with Vue.js to improve data management and operational efficiency for the drilling department. Paused Aug 2024 - Jun 2026 for a company-sponsored scholarship.

KGL Kuwait
Software Engineer **Apr 2016 - Jan 2017**

Worked in the Research and Development department, playing a key role in integrating Enterprise Resource Planning systems with a Ruby on Rails web application, streamlining operations and enabling seamless communication between legacy and modern platforms.

Coded Kuwait
Teacher Assistant **Aug 2015 - Sept 2015**

Served as a Teaching Assistant for the first boot camp in the Middle East, supporting students in learning Python, Django, HTML, CSS, and JavaScript, while creating custom teaching materials to enhance learning and foster a deeper understanding of the subjects.

Education

University of Colorado Boulder Boulder, CO
M.S. in Electrical & Computer Engineering *GPA: 4.0* **Aug 2024 - May 2026**

- **Coursework**: Deep Learning, Concurrent Programming, Programming Languages (Coq), Compiler Construction, Modern Computing Systems, Fundamentals of Computer Security, Distributed Systems.
- **Focus**: Advanced AI techniques, multithreaded system design, formal methods, Compiler Construction.
- **Thesis**: Exploration of Code Size Reduction Using Compiler Analysis. Advised by Professor Joseph Izraelevitz.

Kuwait University Kuwait
B.S. in Computer Engineering *GPA: 3.58* **Sept 2011 - Dec 2015**

- 4x Dean's Honorary List Award recipient.
- Vice President, Computer Engineering Society (CPES), 2-year member.
- Teaching: Developed and led 2-week coding courses for senior students (Python, Django) via CPES.
- Achievements: 2nd Place, Kuwait Collegiate Programming Contest. 1st Place, Capstone Project (Best Project Award).

Projects

Exploration of Code Size Reduction Using Compiler Analysis *C++, LLVM* **University of Colorado Boulder**
Research leveraging BERT-based embeddings of LLVM-IR function representations to improve the yield of existing function merging techniques, achieving higher code size reduction while maintaining program correctness.

Gaid AlKout *Swift, 2016* **App Store**
iOS application for tracking scores in a local Kuwaiti card game, built with Swift, with 60K monthly active users.

Administrate Field Active Storage *Ruby* **RubyGems**
Developed a Ruby gem to integrate Active Storage with Administrate, a Ruby on Rails admin dashboard framework, enabling users to manage file uploads and downloads directly from the dashboard. Currently, it has 2.8 million downloads.