AMIR KARIMI
Senior Software Engineer

Last update: July 2022
[4m1r.dev](4m1r.dev)
+1 (778) 680-2525 | info@4m1r.dev
Vancouver, BC

EMPLOYMENT

Independent Software Engineer Contractor   Vancouver, Canada   **Nov 2021**

- SecureAuth/Acceptto
  - Continued providing services as a contractor/consultant.
  - Help build the next-generation platform product as one of the main contributors to the new components' architecture, design, and development.
  - Technical team training and post-merger knowledge transfer of Acceptto's core products to SecureAuth.

Principal Software Architecture   Acceptto - Vancouver, Canada   **May 2019 - Nov 2021**

- Promoted to lead the core engineering team consisting of 5 engineers developing the core product of the company.
- Reduced the customers' onboarding time from days to hours by
  - Eliminating the need for customer networking configurations by developing a horizontally scalable, client-initiated full-duplex communication layer for an agent running inside the customer's network.
  - Leading the team to re-design and implement the customer's user directory integration and SSO components as a cloud-based SaaS.
- Improved the company's competitive position by implementing a policy orchestration engine that adds flexibility and control to the authentication system.
- Increased the availability and scalability of the company's core services by leading the migration from Heroku to AWS and adding multi-region disaster recovery support, all done using IaC.
- Helped the sales team to close two deals that increased the company's annual income by almost 30% by leading the engineering-focused sales and architecture design meetings with the customers.
- SecureAuth acquired Acceptto in Nov 2021.

Site Reliability Engineer   Disney Streaming Services - Manchester, UK   **Apr 2018 - Mar 2019**

- Helped establish the SRE practices within Disney Streaming Services as the 4th member of the newly shaped SRE team in the company.
- Implemented a transparent cross-region replication support for AWS Kinesis resources to be used by application development teams (Kinesis did not offer such service at the time).
- Improved the visibility and monitoring of different services by contributing to the team codebases mostly in Scala.
- Helped three different teams within a year to prepare for big launches that required handling thousands of requests per second by reviewing the architecture, building high throughput performance tests, chaos engineering, and building necessary tools and processes to improve reliability.

Software Engineer   Disney Streaming Services - Manchester, UK   **Apr 2017 - Mar 2018**

- Developed scalable microservices capable of handling tens of thousands of requests per second using Scala, Play, DynamoDB, AWS Lambda, Kinesis, SQS, S3, etc.
- Contributed directly to the design and implementation of a new subscription system for BAMTech Media, which was later used in Disney+.
- The original company name was Cake Solutions. It was acquired by BAMTech and then Disney in 2017.

Software Designer and Developer   Self-Employed / Contractor - Tehran, Iran   **Jan 2006 - Mar 2017**

- Worked directly with clients from corporate to individual entrepreneurs as a contractor, consultant, or partner.
- Built and managed a network of developers by setting up a transparent system to share the project's financial benefits with the whole team based on the value each member adds. It was a successful alternative to the traditional employment structure of corporations to attract the best talents.
- Designed and developed more than 30 custom-built software applications on the web, desktop, mobile and system applications using different technologies and languages. Some of my featured works done as a solo developer:
  - **Book Coupon Distribution System** (2016) - Registration and payment system that handles sales of book coupons for students used in official Iranian book fairs. This app handled the equivalent of **$2,000,000** transactions within two

weeks for Tehran International Book Fair. Probably the largest project built entirely using the Scala ecosystem in Iran at the time. (Scala, Play, MongoDB, JS/HTML/CSS)

- **Fair Registration and Management System** (2014) - A custom-made fair registration system that automates book publishers' registration process, allowing visitors to search for books and publisher locations online. It handled more than 40 provincial book fairs in the country, including the Tehran International Book Fair, with Alexa's rank below 500 among Iranian websites during the fair times. Handling more than 400 requests per second on a 6 core x64 CPU using 2.5GB of RAM. (Scala, Play, MongoDB, JS/HTML/CSS)
- **Pluggable Authentication Module (PAM) for Acceptto MFA** (2014) - A Pluggable Authentication Module (PAM) that integrates with Acceptto multi-factor authentication service. It allows adding MFA to all Linux services supporting PAM, such as SSH or local user logins. (C, Linux)
- **Marine Services Management** (2012) - Automation of marine services management consists of a desktop application and backend services. The desktop app can work in offline mode and synchronize the data when online. Also, implemented a licensing system as part of this project that prevents illegal copies. (C#, WPF)
- **Steam Boiler Simulation Software** (2011) - A GUI desktop app that simulates a virtual power generator steam boiler. Allows building boiler simulation environments by drag-and-dropping the boiler elements, specifying the connections and parameters, running the simulation, and visualizing the results visually. (C#, WPF, Fortran)
- **Enterprise Report Builder** (2010) - This project started based on the need of a national shipping company for a highly customizable report-building system. The customer was not able to produce their reports using off-the-shelf reporting software. This software was a set of tools, templating system, and integration with Microsoft Office Suite providing the flexibility customer needed minimizing manual operations. (C#, .NET)

Software Developer   Behsad - Arak, Iran   Jan 2004 - Dec 2005

- Software developer in a team of three, consists of two academic researchers, building a 2D cutting-stock problem-solving desktop GUI application for the first of its kind in Iran. Written in C++ and utilizing the Genetic Algorithm, it was solving general cutting-stock problems with less than 5% waste on average.
- Designed and implemented dozens of applications using C#, .NET, and MSSQL.
- Mentored and led a team of junior developers.

EDUCATION

B.S.E in Computer Science Engineering   Azad - Iran   2005 - 2007

- Created a full-featured messenger system from scratch with a custom binary protocol written in C++.
- Gave several talks about Computer Networks & Socket Programming in C++.

AEng in Computer Software   Elmi-Karbordi - Iran   2003 - 2005

- Developed a boot loader program rendering colorful demonstrative content in text mode as an effort to build a basic operating system. Learned working with IO, direct screen memory access, memory management (used linked-list data structure), and implemented some of the C standard library functions from scratch.
- Was selected as one of the top 3 students in the university to participate in the ACM Asian regional contest.
- The youngest student attending this university at age 17.

TECHNICAL SKILLS

- Functional Programming; Distributed Systems; Serverless; TDD; OOP; SOLID; Agile; Kanban
- Python; Go; JavaScript/TypeScript; HTML/CSS; Scala; Java; Ruby; C/C++ (prior experience)
- FastAPI; Django; Rails; Play; Akka; VueJS
- Linux; Docker; AWS; Kubernetes; Terraform
- Postgres; MySQL; AWS DynamoDB; MongoDB; AWS Kinesis; Kafka