

Ali Niaki

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Profile Summary

- Recent **Computer Security** graduate
- Over **three years** of experience in developing **REST APIs** using **Java** and **Spring Boot** and web applications using **Angular**, **TypeScript** and **JavaScript**
- Enthusiastic about and experienced in **software architecture**, **DevOps**, **application security**, **authentication**, **access control**, **cryptography**
- Co-founder** of Tread2Go (tread2go.com)

Skills & Concepts

Programming	Java, TypeScript, PHP, JavaScript, Python, SQL, Eiffel, C, C++
Front-end	PWA, Angular, Node.js, jQuery, SCSS, HTML, CSS
Back-end	Spring MVC, Spring Boot, Symphony, REST API, Microservices, RabbitMQ, Algorithm Optimization, Node.js
AWS	Cognito, BeansTalk, S3, EC2, ECS, RDS, SES, Route 53
DevOps	Amplify, Maven, Docker, Kubernetes, Jenkins
Security	Cryptography, Authentication, JWT, Spring Security, Network Security, OAuth2
Languages	English, Persian
Other	Software Architecture, Linux, Concurrency, Multithreading, Synchronization, Relational Database, CMS, Autodesk Maya

Education

B.Sc. Spec. Hons. Computer Security

Sep. 2015 - Apr. 2020

YORK UNIVERSITY

North York, Ontario, CA

- Member of Dean's Honour Roll (GPA of **7.38/9**)
- Granted membership of Golden Key International Honour Society.
- Achieved Chair's Honour Roll in Mathematics and Statistics

Sep. 2015 - Apr. 2016

Work Experience

Computer Security Research Assistant

Jan. 2020 - Current

YORK UNIVERSITY

North York, Ontario, CA

- Malwareless Web Analytics Pollution Tools Analysis and Development
 - Analyzed multiple attacking tools and headless browsers.
 - Evaluated overall feasibility and effectiveness of conducting successful malwareless attacks.
 - Developed new **multithreaded MWAP attack tool** (github.com/saaniaki/eloki) in **Java 8** and **Maven** using HtmlUnit and Selenium to precisely assess **Google Analytics** and **AWStats** vulnerability to fake requests and successfully manipulate analytical data.
 - Developed features to record genuine human-user generated **mouse movement** and actions using Selenium WebDriver to bypass known bot-detecting tools (**Google reCAPTCHA v3**).

Co-founder & CTO

Jun. 2019 - Jun. 2020

TREAD2GO INC.

Richmond Hill, Ontario, CA

- Architected** and developed mini ERP **REST API** using **Spring Boot**, **Spring Cloud** and deployed on **AWS** Beanstalk.
 - Highly **scalable** and convertible to **microservices**.
 - Significantly **Minimized costs** by automatically scheduling orders, managing resources and optimizing operations.
 - Integrated and used various third-party APIs to make the development process faster (Firebase, Google Cloud APIs, Nexmo, Stripe and more).
 - Applied best practices and design patterns to develop **RBAC** using **Spring Security**.
- Initiated Tread2Go **Angular PWA** and managed Angular **front-end** team using Trello, GitHub and Swagger.
- Improved interpersonal skills to lead the project and **soft skills** to manage the stressful environment.
 - Repetitively converted business requirements to practical development plans, managed and executed development plans using the **defined budget**, enabled the company to continue working with **lean** and **agile** strategy.
- Deployed and maintained **PWA** and **back-end** services, orchestrated and managed DNS, Security Policies, S3, EC2, Beanstalk, RDS and SES.
 - Applied and setup **DevOps** and development pipelines using **Amplify** and GitHub to **ease PWA delivery** significantly.

Information Security Analyst

Jan. 2019 - Apr. 2019

SCOTIABANK

Scarborough, Ontario, CA

- Developed a **robust cryptography** tool in **Java 8** without any framework to include the least number of external libraries (security requirement).
 - Compatible with **OpenSSL** standards, leverages from both **Symmetric** and **Asymmetric** cryptography.
 - Ensures data integrity via **digital signature**.
- Analyzed application security:
 - Static Application Security Testing (**SAST**) via Micro Focus Fortify and Blackduck.
 - Dynamic Application Security Testing (**DAST**) via Micro Focus Fortify Webinspect.
- Integrated new security analysis and management software using **Python** to make analyzing static source code vulnerabilities **more efficient**.
 - Utilized Jira, Bitbucket and **Jenkins** to make application delivery process **more efficient and robust**.

Teaching Assistance

Sep. 2018 - Dec. 2018

YORK UNIVERSITY

North York, Ontario, CA

- Assisted in the “Programming for Mobile Computing” course by helping students learn about **Java 8** and **Android Development**, which significantly contributed to improving **interpersonal skills**.

Full Stack Developer

Jul. 2018 - Sep. 2018

CUBEANGLE INC.

Markham, Ontario, CA

- **Architected** and developed Trade Dimension Dashboard using Angular and **Spring Boot** framework (**REST API**).
 - **Cloud-based web application** to visualize trade data stored on **AWS** Redshift.
- Utilized cloud computing concepts and various **AWS** tools for deployment (**Cognito**, **RDS**, **API Gateway**, **Ubuntu EC2**, **Amplify**).

Web Application Developer

Apr. 2017 - May. 2018

VASTER INC.

North York, Ontario, CA

- Developed Vaster Dashboard using **Angular** and **Symfony** (**REST API**) in **TypeScript** and **PHP** to visualize data and support CRUD operations, deployed on **CentOS EC2**.
- **Architected** and developed **Cloud-based API** of Novo Chat by adapting **Spring Boot**, **Spring Cloud** and **Docker**.
 - Implemented Discovery Service, Default Gateway, Configuration server and other **microservices**, deployed on multiple **Ubuntu EC2** instances.
- Applied best security practices for authentication and **microservices** secure communication (**JWT**).

Volunteer and Other Experience

Freelancer Web Developer

May. 2015 - Feb. 2017

IEM GMBH, SKYNET EDUCATION INC., SKYCHAIN, ETC.

Ontario, CA

- Designed and developed multiple websites using **PHP** based **CMSes** (Drupal, WordPress, Joomla).
 - Used **jQuery** to create more interactive web experiences.

Robotic Team Captain

Sep. 2009 - Apr. 2013

DANESH JUNIOR AND HIGH SCHOOL

Tehran, Iran

- Led the Danesh High School team for three years.
 - Achieved the first place in two local tournaments.
 - Achieved an award in **Iran Open Robo Cup 2012**.
 - Taught high school-level robotics for almost a year.