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

SCOTIABANK

Jan. 2019 - Apr. 2019

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

YORK UNIVERSITY

Sep. 2018 - Dec. 2018

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

CUBEANGLE INC.

Jul. 2018 - Sep. 2018

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

VASTER INC.

Apr. 2017 - May. 2018

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

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

May. 2015 - Feb. 2017

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

DANESH JUNIOR AND HIGH SCHOOL

Sep. 2009 - Apr. 2013

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.