Kiavash Samadi

Computer Science Major · Year 4

kiavashsamadi@gmail.com | www.kiavashsamadi.com | kiavashsamadi

Tech Skills

Languages: Java, JavaScript, Python, C, C++, SQL

Technologies: Git, Bash, Spring Boot, Angular, Azure, Docker, Kubernetes, Jenkins, Terraform, SonarQube

Work Experience

Department of National Defence *Ottawa, ON*

Backend Developer *May 2020 - Aug. 2020*

- Contributed to the development of Assemblyline, an open source scalable malware detection and analysis platform
- Implemented a Python service to analyze potentially malicious Excel documents containing obfuscated Excel 4.0 macros
- Decoded obfuscated macros and utilized an emulator to interpret the macros without having to execute malicious code
- Generated detailed threat assessment reports based on the severity of the indicators of compromise identified

Full Stack Developer *Sept. 2019 - Apr. 2020*

- Developed applications using Spring Boot (Java) for the RESTful backends and Angular for the TypeScript-based frontends
- Automated business processes by developing web apps which incorporated e-signatures, email notifications, relational databases, and multiple users with varying permissions
- Created a CI/CD pipeline to continuously build, test, and deploy applications with branch-specific modifications using Azure, Docker, Kubernetes, Jenkins, Terraform, and SonarQube
- Built an XML digital signature library, implemented performance logging, and improved end-to-end performance by 50%
- Participated in the Agile planning process and acted as scrum master

Projects

Visual Language Learning (nwHacks)

Android App

- A vocabulary-learning app that generates a multiple choice quiz consisting of correct and incorrect descriptions of a photo taken by the user in the language of their choice
- Created a user-friendly interface with a built-in history of captured images and their corresponding quizzes
- Utilized Java to create the client-side which interfaced with a RESTful API and Google App Engine
- Used Google Cloud Vision and Translation APIs in conjunction with Datamuse to retrieve translated words on the server-side

Image Compression

Algorithm

- A lossy image compression algorithm created using C++
- Used quadtrees to break images down to individual pixels and average out values to generate new images
- Optimized splitting points by minimizing the average entropy over nearby pixels

Extracurricular Activities

UBC Computer Science Student Society *Vancouver, BC*

Social Officer & First Year Representative *Oct. 2017 - Apr. 2019*

- Organized events to raise interest in Computer Science and improve engagement with incoming freshmen
- Attended weekly meetings to provide feedback, discuss future plans, and improve operations within the club
- Led a committee of students pursuing degrees in Computer Science
- Developed the necessary skills to effectively communicate with club members and other executives

Education

University of British Columbia *Vancouver, BC*

Bachelor of Science - Major in Computer Science *Sept. 2017 - Present*

- Anticipated graduation date of Dec 2022
- Courses taken: Algorithm Design and Analysis, Data Structures, Computer Hardware and Operating Systems, Internet Computing, Machine Learning and Data Mining, Artificial Intelligence, Distributed Systems, Relational Databases, Ethics