Shivangi Patwardhan

Computer Science - 3B | shivangipatwardhan2018.github.io

spatward@uwaterloo.ca | 2269898270

SUMMARY

- Proficiency in C and C++ honed through tool development and coursework
- Strong Java and Android Development skills exemplified via application and game development projects
- Well-versed in MySQL, SQL and DBMS Methodology
- Deep interest in program security, encryption methods and cryptography, demonstrated via simulation projects

EXPERIENCE

CIBC | Technical Systems Analyst
May 2015 - September 2015 | Toronto, ON

- Helped launch a pilot initiative to conduct technical vendor evaluations, from SOA perspective before vendor selection to save money and optimize time line.
- Developed a new MS SharePoint Site for the Solution Design team with easy to use Project Status reporting, ticket tracking, team calender etc.

UNIVERSITY OF WATERLOO | Network Support Assistant
September 2014 – December 2014 | Waterloo, ON

- Used PHP, HTML, JavaScript and MySQL to completely develop a web application "The MAC Address Registry", to help catalog devices across campus
- Added Data Validation to prevent XSS, utilized Active Directory, CAS and Cookie Hashing

PROJECTS

PERSONAL WEBSITE | HTML/CSS, Aptana Studio

- Web portfolio of my projects
- See website at: shivangipatwardhan2018.github.io

BREAKOUT! GAME | Java 8, Swing, Eclipse IDE

- Multi-level rendition of classic game. Utilized the Painter's Algorithm for proper graphics rendering, handled real-time drawing and animation

FOTAG! IMAGE RANKING WEB AND ANDROID APPLICATION | Java 8, Swing, Eclipse IDE (Web) and XML, Android Studio (Mobile)

- Created a Java Web Application and a companion Android Application to upload/download, rate and filter images based on ratings
- Implemented Model-View-Controller design pattern, visual design and dynamic layout

OS/161 IMPLEMENTATION | C , GDB

- Augmented and improved an elementary Operating System, OS/161 by adding Locks and Conditional Variables
- Added system calls: system-fork, getpid, waitpid, evecv and memory management system with dynamic allocation

SIDE-CHANNEL ATTACK SIMULATION (ECDSA) | Python

- Simulated an operation trace for ECDSA. Reverse computed the signing formula to find the value of the key and implemented a signature verification algorithm to ensure correctness.

EDUCATION

UNIVERSITY OF WATERLOO
Bachelor of Computer Science, Co-op
Expected: April 2018 | Waterloo, ON

HOMESTEAD HIGH SCHOOL
Graduated: June 2013| Cupertino, California

SKILLS

LANGUAGES
- ✓ C
- ✓ C++
- ✓ Java
- ✓ HTML/CSS
- ✓ JavaScript

SCRIPTING
- ✓ Python
- ✓ Bash

DATABASE MANAGEMENT
- ✓ SQL/MySQL
- ✓ DBMS Methodology

TOOLS AND SOFTWARE
- ✓ Matlab
- ✓ Vim
- ✓ Git/Github
- ✓ Android Studio
- ✓ Aptana Studio
- ✓ MS SharePoint

AWARDS

PRESIDENT'S SCHOLARSHIP
University of Waterloo | September 2014

- Awarded to incoming students with 90 - 94.5% entrance average

AP SCHOLAR WITH DISTINCTION College Board | September 2013

- Granted to students who receive an average score of at least 3.5 on all AP Exams taken