# Nicholas Wong

# Software Developer

nickyrwong@gmail.com

778-885-7811

A UBC Computer Engineering Graduate with a variety of technical skills from courses such as security analysis, web and mobile development, software testing and advanced algorithms. A strong problem solver, communicator, team player, and a quick learner with a keen eye for details. A versatile individual seeking Frontend, Backend, or Full Stack developer roles.

#### **TECHNICAL SKILLS**

#### **Computer Skills**

#### **Applications**

Java • JavaScript • HTML5 • CSS • SQL • C • C++ • Assembly

Version Control/Git • MongoDB • Node.js • Selenium • Junit

### **WORK EXPERIENCE**

#### Alpha Technologies Ltd. (Electro Mechanical Assembler)

#### December 2016 - January 2017

- Assembled various power electronics designed and manufactured by Alpha such as breaker fuse boxes and energy management systems
- Performed tests and finalizations according to Alpha's quality control and professional standards
- · Continuously designed innovative methods to improve assembling efficiency across project to project
- Worked amongst and trained by senior and intermediate electrical and computer engineers, technicians and tradesman

#### **TECHNICAL PROJECTS**

#### Lost and Found Database (www.github.com/wongnick/CPSC304)

January, 2015 - May, 2016

- Created a lost and found web application using PHP, HTML, CSS, and SQL
- Designed an ER diagram, database schema, and other attributes such as tables, and functional dependencies
- Hosted entire application on a single local machine using a WAMP server
- · Created a SQL script to initialize and populate database with test data such as item descriptions, which allowed to test all edge cases
- Developed SQL queries for accurate data fetching between server and database such as selection, projection, division, and aggregation

# Online Store (www.wongnick.github.io/CPEN400/assn4)

September, 2015 – December, 2015

- Created an online store web application using JavaScript, HTML, and CSS
- Implemented the UI based on a given set of requirements such as maximum page height, button dimensions, and mouse events
- Coded server in Node.js and used AJAX calls for client-server communication
- Designed a NoSQL database in MongoDB to simplify server and database interaction
- Sent HTTP GET and POST requests, and DB queries that allowed for reconstruction of client side data and manipulation of DOM elements

#### **E-Recruit System Penetration Analysis**

#### September, 2014 – December, 2014

- Performed a successful penetration test on UBC's faculty recruitment system, which allowed an attacker to gain access to any user account
- Bypassed user log-in via WebScarab, which intercepted HTTP(S) protocol requests between client and server
- Discovered system flaws that violated the CIA properties and exploited them via brute force attack
- Attempted an executable attack by uploading a malicious document to the E-Recruit system
  Attempted an XSS attack by injecting oracle SQL commands into various input fields
- Discussed findings and security recommendations with system owner and associated stake holders

# **Android Security System (Android Application)**

January, 2014 - April, 2014

- Designed and built a home security system using an Android device's camera and microphone
- Created an algorithm that allowed configurable frame rates and handled memory limitations for efficient motion detection
- Constructed placeholders for incomplete components to allow agile development and smooth component testing
- Incorporated project components developed by teammates and ensured the functionalities of each were maintained after integration

# **EDUCATION**

**University of British Columbia** 

Bachelor of Applied Science / Computer Engineering

September, 2010 – May 2016