Shulun **Chen**

Web/Software Developer · Data Scientist · Engineer

201, 48 Concession St., Kingston, ON, Canada, K7K 2A6

343-333-4396 | chenshulun@gmail.com | shulun.github.io | shulun | shulunchen

Summary

A highly skilled and enthusiastic developer and an engineering physics graduate from Queen's university who has in the past built simple arcade games with Python, earthquake map and text-editing applications with Java, restaurant websites and mobile applications with multiple web frameworks and android tools. Furthermore, he has extensive experiences in solving complicated mathematical, physics and computing problems using many techniques from numerical analysis and modelling.

Skills

Programming Languages	Python, Java, JavaScript, MATLAB, C, Mathematica, R
Programming Skills	Object Oriented Design and Analysis, Test-driven Development, Hardware Control, LaTex, Microsoft Office Suite
Version Control	GitHub
Operating Systems	Windows, Linux, Android
Engineering Programs	MATLAB, Solid Edge, Google SketchUp, COMSOL
Soft Skills	Effective communicator, Team player, Leadership, Time management, Perform well under pressure

Experience

Restaurant Website and Mobile Application Design

Kingston, ON

Part-time Web Developer — *Jun. 2016 - Aug. 2016*

- Set up a responsive website featuring a restaurant using Bootstrap and its components.
- Used Bower and NPM to retrieve packages and organize them into JSON files.
- Utilized Less and Sass to customize CSS codes.
- Adopted Grunt and Gulp to construct the restaurant website project.
- Employed modal-view-controller (MVC) design pattern to implement website user interface.
- Launched functional front-end web applications using AngularJS.
- Performed unit testing and E2E testing on codes with Karma and Protractor.
- Built a restaurant mobile application targeting iOS/Android platforms with a single codebase.
- Used various features of Ionic framework to build a hybrid mobile application that could be run on Andoid phones.

Earthquake Map and Text Editor Application Design

Kingston, ON

Part-time Software Developer — *Apr. 2016 - Jul. 2016*

- Designed an interactive map with Java and Processing that used data collected from USGS to display updated earthquakes around the world.
- Coded a simple text editor GUI with Java that provided many standard functionalites such as auto-complete and auto-correct which allowed users to refine their texts, as well as Flesch score calculation and playable word games.
- Adopted test-driven development and wrote test codes for all the applications above to ensure good performance.

Web-based Arcade/Puzzle Game Design

Kingston, ON

Part-time Web Game Developer — *Jul. 2015 - Oct. 2015*

- Built arcade/puzzle games such as Pong, Zombie Apocalypse, Asteroids, 2048 and many others that could be played on browsers with Python.
- Implemented a simple GUI and tests to further polish the games and secure the game flow.

Undergraduate Robot Design Project

Kingston, ON

Full-time Undergraduate Student — *Sep. 2013 - Dec. 2013*

- Worked in a team to design an autonomous air-hockey robot that was capable of playing against human players.
- Used a high-speed PlayStation eye camera to track puck movement with RoboRealm software.
- Employed x-y arms, rail carts, pulley systems, H bridge driven DC motors to construct the robot.
- Coded PID control of the robot with C and Arduino IDE.

Undergraduate Thesis Project

Kingston, ON

Full-time Undergraduate Student — *Sep. 2013 - Apr. 2014*

- Finished a complete design of the PLEC test-box, including the circuit/temperature control and mechanical components.
- Coded the circuit/temperature feedback control systems with C.
- Compiled a detailed thesis report on the entire design.

Graduate Project

Kingston, ON

Full-time Graduate Student — *May. 2016 - Jun. 2016*

- Wrote image analysis programs that performed simple object boundary recognition and distance measurements with MATLAB.
- Coded programs that operated the control systems of lab equipment with LabView.
- Used COMSOL to conduct a finite element analysis of the device studied to support experimental results.

Honors

Awards

2013 **Dean's Honor List**, Queen's University — *Kingston, ON*

2012 **Dean's Honor List**, Queen's University — *Kingston, ON*

2011 **Dean's Honor List**, Queen's University — *Kingston, ON*

Certificates

2015 **Intercultural Competence Certificate**, Queen's University International Center — *Kingston, ON*

2015 **Standard CPR & First Aid**, ISLAND Aid — *Kingston, ON*

Education

Queen's University

Kingston, ON

B.S. in Engineering Physics — *Sep. 2010 - Apr. 2014*

- GPA: 3.6, Science 95 Bursary Awardee
- Dean's Honor List, First Class Graduate

Queen's University

Kingston, ON

M.Sc. in Engineering Physics — *Sep. 2014 - present*

- Graduate Travel Award

Publications

Queen's University

Kingston, ON

CHEMELECTROCHEM — *Oct. 2015*

- Solid-State Bipolar Electrochemistry: Polymer-Based Light-Emitting Electrochemical Cells: link