

# Rui (David) Zhang

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Full Stack Developer | Ex-National Swimmer | Recreational Boxer

## Work

### Validus Research

**Full Stack Web Developer**, Sept - Dec 2017, Toronto, ON

- Redeveloped the **entire** Validus' Underwriting Portal from AngularJS to **Angular 5** and **reduced** the code by **35%** with the same functionalities
- **Increased** the performance (**20%+**) of the Underwriting Portal by redesigning the architecture from scratch and implemented routing|observables|service-workers and **bypassed async constraints**
- Added advanced **localstorage/sessionstorage caching** to the Underwriting Portal and **decreased** web service calls by **99%**
- Integrated data analytics into the Underwriting Portal by integrating Tableau and injected multiple optional constraints to manipulate data
- Designed an enterprise level **RESTful API** and integrated it to MuleSoft which **negated 75%** of code and deployed it into production
- **Replaced 25** endpoint flow processes **with 20** and linked it to the company-wide Underwriting portal using MuleSoft, AngularJS, Microsoft SQL Server, and XML.
- Constructed a dynamic user-friendly widget that lets underwriters be able to create/update/delete/view announcements from the interface which reduced time delay **between business and IT by 100%**

### Sun Life Financial

**Web Application Developer**, Jan - April 2017, Waterloo, ON

- Designed a **Chatbot and an Amazon Alexa Skill** that let's users perform insurance claims and received funding by the executive board
- Received an **award** for demonstrating - Passion|Performance|Partnership|People by implementing **neural networks** with underwriting insurance policies and sped up performance by **25%**
- Developed proof of concepts (PoC) using Angular2 and ReactJS in an agile scrum process and approved by lead architect for development
- Performed manual unit & automation testing using Object Spy

### Nightingale Electrical

**Electrician**, May - Aug 2016, Vancouver, BC

- Implemented electrical diagrams (AutoCAD) for installation guidance
- Shadowed electricians (Journeyman/Foremen) at various construction sites and optimized the process from assembly to installation
- Tenaciously learned the installation of wires, sensors, electrical panels, and other electronics without prior knowledge

## About Me

I have a passion in **software development** and a strong **analytical** mind. I seek to invest in **challenging opportunities** and reward myself with the amount of popularity from my contribution. I have an on-going interest in the field of **AI and Blockchain**.

## Contact Me

- r255zhan@edu.uwaterloo.ca
- My Website: [dzcodex.github.io](https://dzcodex.github.io)
- [Github](#)
- [LinkedIn](#)
- (519)-721-7737

## Skills

- Languages: Python (Flask, Seaborn, Pandas, Numpy, matplotlib), Java, JavaScript, Typescript, PHP, MySQL, HTML&CSS
- Full Stack: Angular5 and AngularJS, MuleSoft, NodeJS, Linux, Matlab, MongoDB, LoDash, Microsoft SQL, POSTMAN, Git

## Extra Courses

- Machine Learning - Stanford University Coursera
- Algorithms and Data Structure Specialization - UC San Diego Coursera
- Python Data Science - Udemy
- VueJS & Vuex - Udemy

## Education

- University of Waterloo - B.A.S. Candidate  
Management Engineering

## Hackathons

- HackPrinceton 2017 (Featured)
- Hack Harvard 2016
- Hack The North 2016
- UofT Hacks

## Projects

### Stock Market Analysis

*Statistical Approach for Stock Predictions and Daily Risks*

- Developed a stock market analytical tool based on university level statistics and probability to calculate daily returns, moving average of stocks, correlation between stocks, value at risk, and stock predictions
- Self-taught and applied stock prediction methods including Bootstrap and Monte Carlo Method to run simulations for accurate predictions
- Technology: Python - Numpy, Pandas, Seaborn, Matplotlib

### Personal Website

*State of the Art Web Technology for performance rendering*

- Developed from scratch a single page application using VueJS/Quasar
- Implemented the use of Components, Data-Binding, Directives, Animations/Transitions, service workers, and Routing
- No matter what page a user goes to on my site, the browser will not reload

### HackPrinceton 2017 - Scheduler Pro

*Amazon Alexa Skill - Voice Activation/Texting/Scheduling (Featured on Twitter Princeton)*

- Developed an Amazon Alexa Skill with text messaging and scheduling capabilities in 36h
- Implemented an algorithm that prioritizes daily tasks into an optimal schedule and integrated DynamoDB for further data collection used to remind users of deadlines
- Awarded as an Amazon Sponsor Prize Winner and featured on Princeton's Twitter Page

### Grocertrack - Full Stack Web App

*Helps food retail companies increase efficiency through data analysis*

- Developed a full stack website that helps food retail companies increase efficiency through supplying a secure data storage and manipulation system
- Created an Enhanced ER diagram with dozens of entities and attributes, added data into a MySQL database, applied queries with relevant business logic, and developed the frontend for a user-friendly visualization experience

### HackHarvard 2016 - PacMen

*Multiplayer - SDK provides backend with 3-tier Architecture*

- Built a cross-platform multiplayer Pac-Men (up to 1 million connections) SDK in 36h
- Self-taught and implemented PhaserJS, HTML5, NodeJS, SocketIO, Firebase

## Other Interests

- Browsing StackOverflow
- Reading tech articles on Appy Geek
- Keeping updated on Cryptocurrency, Blockchain, and stocks
- Weight lifting
- LesMills Body COMBAT/PUMP/CXworks
- Recreational boxing
- Ex-competitive Swimming