# Rui Zhou

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## SUMMARY

Master student graduate from Concordia University. Experienced software developer looking for challenging opportunities in the field of web development and evolution. Excellent technical skills in programming using C++, Java, and Python. Extensive knowledge of the Artificial Intelligence, Machine Learning, and Web Security.

## EDUCATION

### Master of Electrical and Computer Engineering                    2018 - 2020

*Concordia University, Montreal, Canada*

- **Relevant Courses**: Programming on the Cloud(A), Optimization Technology, Formal Hardware Verification, Computer Architecture

## PUBLICATION

### MobiLogLeak: A Preliminary Study on Data Leakage Caused by Poor Logging Practices                    2020

27th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2020)

## ACADEMIC PROJECTS

### Software Vulnerability Detection                    2018 – 2020

*Graduate Research, Concordia University*

- Researched and collected pertinent documents in the field of Android logging practices and software vulnerability detection.
- Analyzed the taint flows between Benign and Malware in 600,000 android applications by FlowDroid to check the current security section in the industry.
- Communicated the work process with the supervisor in the weekly meeting and received feedback.
- Collaborated with the professor at WSU to extend the Android analysis software by Soot.
- Performed all programming functions and run the tools by using: Soot, DoridFax, FlowDroid, Java, Shell Bash.
- Built the tool, LogDroid, to automatically detect data leakage, generate vulnerability reports and give suggestions..

### GitHub User Behavior Analytics System                    2018

*Programming on the Cloud, Concordia University*

- Assisted the user behavior analysis by Deep Learning (LSTM) to let the results be close to real practices.

- Designed the online website and developed the front-end by JavaScript, Ajax, Bootstrap, and HTML5.
- Compared the benefits among PaaS, IaaS, SaaS and finally deployed the services on Amazon Web Service.
- Developed the Android application to extend the usage of this system
- Generated the GitHub REST API to access the service in the back-end.
- Presented the consequence in the class final evaluation and get A grade in this course.

### Cybersecurity & Natural Language Analysis                                    2014 – 2015

*Research Assistant, Shandong University*

- Researched in the domain of Cybersecurity, Internet Logic Security in E-commercial website and natural language analysis.
- Contributed to the development of automatically computing the logical vulnerability for online service and maintained the software by Python.
- Presented my outcomes in the Key Lab of Cryptographic Technology and Information Security, Ministry of Education, Shandong University.
- Assisted with the professor in UTA to clarify the intention of the masses for policies.
- Executed the intention by Natural Language Toolkit and predicted the masses trend by Machine Learning tool, Scikit-Learn.

## CAREER-RELATED EXPERIENCE

### Computer Programming Teaching Assistant                                    2019 – 2020

*Concordia University, Montreal, Canada*

- Gave the tutorial of Programming Methodology, C++, to undergraduate students.
- Organized the competition to let the students focus on the experiment
- Rewarded the champion to encourage students to  participate in the programming

### Web & Mobile Developer                                    2015 – 2016

*K-Logic Software Inc., Jinan, China*

- Built the website front-end by Scale, Bootstrap, Ajax, JavaScript, CSS, and HTML.
- Wrote the system back-end by Java in the template of Spring-Struts-Hibernate.
- Managed the database by MySQL and using Java Persistence API to store the data
- Organized the code in the pattern of Model-View-Controller and Managed by GitHub.
- Developed the mobile application for the system by Ionic2 Framework.

### Student Training System Designer                                    2013 – 2014

*Shandong University., Jinan*

- Performed as the team leader to design software department student training system
- Used the Play Framework to build the system with MySQL database
- Evaluated the system with 800 students in the software engineering department
- Trained the new student to learn the system process and to continue for maintenance
- Managed the Group of 5 people and distributed the tasks to each one

## SKILLS

- **Programming languages**: Java, C/C++, Python, Shell Bash.

- **Web & Mobile**: Ajax, JavaScript, Bootstrap, CSS, HTML5, Html, Ionic2 Framework.
- **Programming**: Github, Soot, Flowdroid, Droidfax, Natural Language Toolkit, Scikit-Learn, Liner SVM, Pytorch, LSTM, Pygame, Mysql, Play Framework, Spring+Struts+Hibernate, C++ 2D Game Engine.
- **Academic Technologies**: Nature Language Process (Natural Language Toolkit), Machine Learning (Scikit-Learn, Liner SVM, KNN), Deep Learning (PyTorch, TensorFlow, LSTM), Reinforcement Learning, Q-Learning.
- **Development Tools:** Eclipse, XCode, Visual Studio, PyCharm, Atom, MATLAB, Photoshop

## LANGUAGES

Fluent English, Working French, Native Mandarin

## COMPETITION & OTHER PROJECTS

### Night Adventure                                                                      2014

*Android Game, QILU Software Design Competition, Jinan, China*

- Designed the market and trading system in the Game by the 2D C++ game engine.
- Organized the work for each member and tested the app final version.
- Wrote the software documents and communicated with the competition association.
- Received the prize in the QILU Software Design Competition of Shandong Province.

### Super Tofu                                                                           2013

*PC Game, QILU Software Design Competition, Jinan, China*

- Designed and collected the animation material by Photoshop, including character image and background music.
- Developed the program by PyGame and tested the app final version.
- Wrote the game documents and contacted with the competition organization.
- Received the prize in the QILU Software Design Competition of Shandong Province.

## ADDITIONAL TRAINING & CERTIFICATIONS

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|---|---|
| Certificate of Artificial Intelligence A-Z™: Learn How To Build An AI | 2020 |
| Certificate of Second Language Proficiency in the French Conversation Program | 2019 |
| Certificate of Second Language Proficiency in the Intensive English Language Program With Distinction | 2017 |
| IBM Certified Solution Developer - XML 1.1 and Related Technologies | 2013 |

## AWARDS AND HONOURS

- Reward the Honor of Outstanding Graduate at Shandong University                       2016

- Award the Dean Scholarship of Software Engineering Department at Shandong University          2014 & 2015
- Award in ACM Contest at Shandong University          2014

## REFERENCE

**Linkedin:** https://www.linkedin.com/in/ruizhou40042533/

**Github:** https://github.com/r-zh

**Publication:** https://ieeexplore.ieee.org/document/9054831

**Project Demo:** https://www.youtube.com/playlist?list=PL66KAFVYfnJS1MWhQfrZKv7vR1VG-oWxs

## REFERENCE

**Supervisor:** Abdelwahab Hamou-Lhadj

*Professor, Concordia University*

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