JIAYUAN ZHOU Ph.D. student

|EMAIL: jiayuan.zhou@queensu.ca | Site: jiayuan.dev

|MOBILE: +(1)343-333-5254 | LinkedIn: linkedin.com/in/zhoujiayuan

---

TECHNICAL SKILLS

Domain Data mining, Machine Learning, Software Engineering

Skills Supervised & Unsupervised Learning, Predictive & Explanatory Modelling, Computational Data Analysis, Natural Language Processing

Languages Python, R, Java, SQL

WORK EXPERIENCE

Queen's University
Sept. 2017 – present

Research Assistant at **SAIL Lab**
(Software Analysis and Intelligence Lab)

- A case study of bounties in Stack Overflow. The study applied **statistical modeling** for revealing and interpreting the association between bounties and question solving-likelihood/solving-time. Built a **neural network** to classify the successful bounty questions.
- A case study of bounties (from Bountysource) in GitHub issue reports. The study used **statistical modeling** to provide insights on how to leverage bounties to address issue reports.
- A case study of donations (from Opencollective) in GitHub projects. The study conducted a **statistical analysis** to study the characteristics of donors and uncover the donation-usage pattern of project maintainers.
- A study of the performance comparison between **automated machine learning** (AutoML) and **hyperparameter tuning machine learning** (HptML). The study based on the Microsoft Azure platform using software engineer defect dataset to provide practical suggestions on how to achieve a performance efficiency result on a new defect dataset.

Alibaba Group
B2B Technology Department
June 2015 – Aug. 2017

R&D Engineer & Senior Development Engineer

- Worked as a technical product owner of a cross-e-commerce-market trade platform, which enabled commodities and orders to flow freely between the B2B e-commerce market and the C2C e-commerce market.
- Designed and developed a **large-scale distributed system** using Apache Hive and Java Spring framework. The system managed multi-million scale commodities and orders from different e-commerce markets.

Demo (Chrome extension):
https://goo.gl/IIPNjo

- Designed and developed a similar commodities network system which can recommend similar commodities from different e-commerce markets. The network was constructed with the trading data across different e-commerce markets using **information retrieval** and **machine learning** techniques. Parts of services was wrapped as Chrome extension basing on Apache Solr.
- My work yields **five patent submissions** and three of them have already been granted by the National Intellectual Property Administration of China.

EDUCATION

Queen's University
Sept. 2017 – present

Doctor of Philosophy (GPA: 4.08/4.3)

I'm currently pursuing my Ph.D. degree under the supervision of professor Ahmed E. Hassan. My research interests focus on Mining Software Repositories (MSR), which applies Data Mining to solve Software Engineering problems. My research topic is about studying the extrinsic rewards in open source software communities. For example, how to leverage bounties (i.e., the monetary incentive) to address GitHub issue reports, and what is the impact of donations on open source software. I was directly promoted to the Ph.D. program without completing my M.Sc. degree in May 2019.

Kyushu University, Japan
Feb. 2019 – Apr. 2019

Visiting Researcher at **POSL Lab**
(Principles of Software engineering and programming Languages Lab)

I was invited by professor Yasutaka Kamei for a three-month research collaboration through the Mitacs Globalink program. We applied data mining and machine learning techniques to study and analyze the impact of donations on open source communities.

Dalian Maritime University
Sept 2011 – July 2015

BACHELOR OF ENGINEERING (GPA 3.86/4.3)

I obtained my Bachelor degree in Software Engineering from Dalian Maritime University, which is one of the "Project 211" institutions in China. During my undergraduate study, I was ranked top 10% in my major, and had been awarded several scholarships for my outstanding academic performance. I participated in many competitions including the National College Students Innovation and Entrepreneurship Training Program, Mathematical Contest In Modeling, and ACM-ICPC.

JOURNAL PUBLICATIONS

Jiayuan Zhou, Shaowei Wang, Cor-Paul Bezemer, Ahmed E. Hassan, "Bounties on Technical Q&A Sites: A Case Study of Stack Overflow Bounties", **accepted** in *Empirical Software Engineering*, June 2019.

Jiayuan Zhou, Shaowei Wang, Cor-Paul Bezemer, Ying Zou, Ahmed E. Hassan, "Studying the Association between Bountysource Bounties and the Issue-addressing Likelihood of GitHub Issue Reports", submitted to *IEEE Transactions on Software Engineering*, under major revision.

SELECTED AWARDS

Queen's University Duncan and Urlla Carmichael Fellowship, 2019 - 2020.

Mitacs Globalink Research Award, Nov. 2018.

Avanade Inc. Queen's University's annual hackathon, *Winner of Avanade Prize*, 2018

Queen's University Queen's University's annual hackathon, *finalists*, 2018.

ACM-ICPC Asia Regional Contest, Changchun Site, *Bronze Medal*, Sept. 2013.

GRANTED PATENTS

(National Intellectual Property Administration of China)

May. 2018 Object association method and system.

Mar. 2018 Information comparison method and apparatus.

Mar. 2016 Method and device for processing object data set.