JIAYUAN ZHOU Ph.D. student

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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, C

Framework
Apache Solr, Java Spring Framework, Apache Hive

WORK EXPERIENCE

Queen's University
Sept. 2017 – present

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

➢ A study of the performance comparison between **automated machine learning** (AutoML) and **hyperparameter tuning machine learning** (HptML). The experiment was conducted on Microsoft Azure Cloud. Using Software Engineering defect dataset, the study provides practical suggestions on how to achieve an optimal balance between performance and time consumption.

➢ 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.

Alibaba Group
B2B Technology Department
June 2015 – Aug. 2017

R&D Engineer & Senior Development Engineer

➢ Worked as a technical product owner of a trading platform, which enables merchandise and orders to flow freely between the B2B and the C2C platforms.

➢ Designed and developed a **large-scale distributed system** using Apache Hive and Java Spring framework. The system supports multi-million scale merchandise and orders from different e-commerce platforms.

Chrome extension:
https://goo.gl/IIPNjo

➢ Designed and developed a merchandise recommendation system which can recommend similar merchandise from different e-commerce platforms. The recommendation model was built from the trading data across different e-commerce platforms using **information retrieval** and **machine learning** techniques. The recommendation system was also provided to clients through a Chrome extension.

➢ 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.
Mitacs	Global link Research Award, 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*, 2013.

GRANTED PATENTS
(National Intellectual Property Administration of China)

May. 2018	(CN201610834864) Object association method and system.
Mar. 2018	(CN201610772470) Information comparison method and apparatus.
Mar. 2016	(CN201610710941) Method and device for processing object data set.