

JASON ZHU



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EDUCATION

Bachelor of Computer Science Honours Co-op

September 2018 - Present

University of Manitoba | Winnipeg, MB

Faculty of Science GPA: 4.25 / 4.50

Expected Graduation: December 2025

Awards: Dean's Honour List | 2018 - 2020, Undergraduate Student Research Award | 2019 & 2020

TECHNICAL SKILLS

Languages	Frameworks	Software	Operating Systems
Python, Java, SQL	PyTorch, JUnit,	Git, GitHub Actions,	Windows
JavaScript, HTML/CSS,	Mockito, Bootstrap	Android Studio, Visual	XP/Vista/7/8/10/11,
C, C++, Markdown, R		Studio Code, PyCharm	Linux, Android

SOFT SKILLS

- Proficient multidisciplinary team player
- Effective written and oral communication ability
- Quickly and effectively learn emerging technologies
- Highly flexible and adaptable
- Strong problem-solving and analytical skills
- Exceptional time management and organizational aptitude

RELEVANT WORK EXPERIENCE

DeFi Data Analyst/Researcher | University of Manitoba

May 2022 - Present

- Collaborating with two distinguished computer science professors to co-author a research paper: <https://github.com/JZ-FSDev/InnerCore/blob/main/InnerCore.pdf>
- Analyzing and processing Ethereum blockchain temporal transaction graphs to model historical market sentiment
- Implementing Python and R scripts for efficient querying and statistical computation, handling large SQL databases with over 45 million transactions
- Optimizing a depth-based graph core decomposition algorithm, achieving a 7-10x performance improvement
- Developing a novel methodology for scalable anomaly detection in temporal snapshot transaction graphs, successfully identifying 9 out of 11 investors responsible for the Terra Luna collapse, as recognized by Nansen.io

Business Website Manager | Peking Chinese Foods

October 2022 - Present

- Overseeing visual design and layout to align with company brand and convey a professional image: <http://pekingwpg.com/>
- Optimizing page load times, navigation, and mobile responsiveness to ensure excellent user experience on older mobile devices

PROJECTS

Anomalous Trace Classification ML Model | DeFi Data Analysis/Research

Sept 2023 - Present

- Architecting a machine learning model via PyTorch to detect anomalous blockchain transaction traces in real-time
- Supporting the setup of an Ethereum node and resolving Python dependencies of libraries for trace data extraction

Tech Titans Music Management System | Software Engineering 1

May 2023 - August 2023

- Launched a professional project website, leveraging GitHub Actions and Jekyll for seamless deployment and hosting: <https://techtitans-uofm.github.io/posts/Music-Management-System>
- Led a team of 4 to collaboratively develop an A+ quality, fully functional 3-layer Android application, encompassing a refined Android presentation layer, a robust Java logic layer, and an HSQLDB persistence layer
- Applied the Agile methodology, adhering to SOLID principles and industry-standard software design patterns
- Conducted rigorous user acceptance reviews and implemented automated testing via JUnit and Mockito frameworks to achieve >80% code coverage, ensuring both the visual and functional excellence of the application

ADDITIONAL WORK EXPERIENCE

Operations Manager | Pembina Village Restaurant

November 2014 - June 2018

- Increased profit margins by an average of 6% annually through optimizing employee schedules and implementing precise product valuation techniques, resulting in increased order volume and reduced overhead costs
- Established and maintained open communication channels with government regulatory agencies to uphold 100% compliance with building and safety codes
- Enforced quality standards and recipe consistency to reduce customer taste complaints by 26% in the first year
- Engaged in regular meetings with food wholesale representatives to evaluate the quality and cost-effectiveness of competitor goods, ensuring the best value for our customers without compromising quality
- Configured POS systems and resolved software errors to align with menu specials or promotions