UBC Science Co-op

T: 604.822.9677 | F: 604.822.9676 | science.coop@ubc.ca | www.sciencecoop.ubc.ca

Jiaqi (Jessie) Zhou

Year 2, Combined Major in Computer Science and Statistics

(236) 877-4788 | jzhou819@student.ubc.ca | linkedin.com/in/zhou-jiaqi | github.com/jessiezhou819

TECHNICAL SKILLS

Programming: Java, C/C++, Python, R, Racket, Assembly, HTML5/CSS, SQL* * Currently Acquiring
Testing: JUnit5, GDB, TDD, writing test plans
Libraries/Framework: Pandas, Scikit-Learn, NumPy, Swing, React.js*
Tools/Environment: GitHub, LaTeX, RStudio, Jupyter, VS Code, IntelliJ, PyCharm, UML, Excel, Linux

TECHNICAL PROJECTS

Hotel Management Application [GitHub] Sep - Dec 2023
| *Java, JUnit 5, Swing, Git, UML diagram*

- Designed and developed a Java Swing desktop application aimed at optimizing guest record management and visualizing core business KPIs (e.g., current revenue)
- Achieved 100% code coverage and ensured application stability through Test-Driven Development methodology with a comprehensive test suite using JUnit 5
- Ensured data integrity and continuity by implementing robust persistence mechanisms such as JSON serialization
- Utilized Swing to enhance the interactive graphical user interface (GUI), facilitating real-time financial tracking through effortless user inputs, thus driving operational efficiency
- Adopted core Object-Oriented Programming principles and applied Design Patterns to fortify the system's scalability

Wine Quality Prediction Report [GitHub] Sep – Dec 2022
| *Machine Learning, Jupyter Notebook, R, GitHub*

- Applied the K-Nearest Neighbors (KNN) classification algorithm to predict wine quality based on 5 selected predictors
- Led a team of 4 by proactively delegating tasks and establishing clear responsibilities before project initiation
- Facilitated effective analysis leveraging the *tidyr* package for precise data cleaning and *ggplot2* for compelling visualization, offering clear insights into the patterns discovered
- Overcame the challenge of unbalanced data and achieved equitable representation of classes through 'upsampling', leading to a 5% increase in accuracy
- Produced a detailed 1500-word report outlining the methodology, findings, and insights gleaned from the analysis

VOLUNTEER EXPERIENCE

Peer Tutor, *Shanghai United International School* Shanghai, China | Sep 2021 – May 2022

- Demonstrated commitment to academic support through organizing 40+ hours of peer tutoring sessions for 3 students, focusing on Calculus and Computer Programming
- Fostered open communication channels to better understand students' challenges and adapted flexible tutoring methodologies to suit diverse learning styles, providing personalized support
- Translated complex concepts into intuitive real-life examples, enhancing comprehension levels and resulting in a 3% grade improvement for one student

EDUCATION

University of British Columbia, *Bachelor of Science* Vancouver, BC | **Expected Graduation May 2027**
Year 2, Combined Major in Computer Science and Statistics, GPA: 4.33/4.33 (Dean's List)

Relevant courses: Basic Algorithms and Data Structures, Software Construction, Introduction to Computer Systems, Statistical Inference for Data Science, Matrix Algebra, Calculus III, Elementary Statistics for Applications

SKILLS & INTERESTS

Language: Professional working proficiency in English, Native proficiency in Mandarin
Interests: Tennis, Fitness, Puzzles, Photography, Sketching