

# Zhihao Huang

Software Engineer and Data Analyst - McGill  
Vancouver / Montreal  
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## SKILLS

- **Languages:** Proficient in Java and Python, experienced in Bash scripting, C and SQL queries
- **Software:** Competent in software design and in various testing methods such as unit and integration tests
- **Data Science:** Skilled in data analysis using Power BI, R and Python modules
- **Platforms:** Experienced in Agile workflow with Azure DevOps, Jira, Jenkins, Confluence, AWS and Splunk
- **Web Dev:** Familiar with front-end development using HTML, CSS and JavaScript

## EXPERIENCES

- **Software Dev Engineer Intern** Vancouver, B.C.  
*Amazon Web Services - Simple Notification Service - FIFO* June 2023 - August 2023
  - Back-end Java development for AWS SNS messaging service
  - Improved SNS FIFO messaging for cold topics starting latency from 50 to 17 ms for p50 (74% improvement)
  - Developed end-to-end software from design to implementation to testing to deployment and maintenance
  - Collaborated with the team to grow exponentially the new SNS FIFO service horizontally
- **Software Development Intern** Montreal, Qc  
*Morgan Stanley* May 2022 - December 2022
  - Java Dev. and Design in equity management web application with clients such as Amazon, Google, and Uber
  - Wrote 100+ unit, integration, and UI tests covering 100% of implemented feature changes and 300+ SQL queries
  - Utilising many software tools such as Jira, Jenkins, Confluence and Splunk
  - Agile workflow and coordinating with teams consisting of developers and QAs
- **Teaching Assistant - Computer Science** Montreal, Qc  
*McGill University* September 2022 - present
  - Gave biweekly tutorials to 600+ students in the Introduction to Computer Science class
  - Taught Java, data structure and algorithms, induction, graph theory, and asymptotic notations
- **Data Analyst Intern** Montreal, Qc  
*Bombardier* Jan 2022 - Apr 2022
  - Manipulated enormous market demand and forecast data in python and R using AWS EC2 and S3
  - Collected data with SAP and created a data flow with SharePoint API
  - Cooperated with the team using Azure DevOps for biweekly sprint reviews with Agile workflow
  - Visualized and presented successfully data to higher management with Power BI and python
- **Research Internship in Digital Analysis** Gatineau, Qc  
*Cégep de l'Outaouais* May 2021 - Dec 2021
  - Created a pandemic simulator with easily changeable parameters using Python
  - Cooperated with a team and achieved a full project folder
  - Financed by Natural Sciences and Engineering Research Council of Canada (NSERC).
  - Project code: CCIPE 517932-17; Supervision: Charles Varin, PhD and Olivier Rousseau, PhD.

## EDUCATION

- **Bachelor of Science - Computer Science and Statistics major** Montreal, Qc  
*McGill University* 2020 - 2024
  - AI, Data science, Java, Python, C, Linux, Algorithms and Data Structures
  - Statistics, Algebra, Calculus, Discrete math, Analysis
  - Received Excellence Bursary by MEESR
  - cGPA: 3.95/4.0

## PROJECTS

- **AI game agent:** created an AI game-playing agent in Python using multiple AI techniques such as Monte Carlo Tree Search and Alpha-beta pruning with game evaluating heuristics. The branching factor of the game is around 250.
- **Hackathons:** participated in many Hackathons such as McHacks, TOHacks, Hatch2021, MMA Datathon Fall2021. Learned about web dev., Android app dev., API usage, Data analysis using R/Python.