# Badral Khurelbaatar

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#### **EDUCATION**

Carleton University Ottawa, ON

Honors Bachelor of Computer Science, Minor in Mathematics

Expected Graduation May 2023

GPA 4.0/4.0

Scholarships/Awards: Dean's List, Faculty of Computer Science Scholarship

#### **EXPERIENCE**

# Trade and Development Bank of Mongolia

Ulaanbaatar, Mongolia

Mobile Software Engineer (Java, Linux, SQL, git, Android Studio)

May 2020 - December 2020

- Mobile Development Developed, documented a mobile application (functional on Android) using MacOS, Android Studio Code, and Java. The application permitted Employees to select a training session, and scan a QR code for attendance
- Documentation Created application documentation, release notes, and update notes as needed
- o Unit testing Developed and used Junit for Automation testing
- · Hardware fix Fixed and Re-Formatted damaged company Computers, and re-installed software

Carleton University Ottawa, ON

Teaching Assistant: Introduction to Systems Programming (C, GDB, Linux)

September 2021 - December 2021

- o Assignment Grading Graded students' assignments and gave relevant feedback to students
- o Tutorials Led, taught, and marked weekly tutorials to ensure students fully understood the lecture material
- o Office Hours Engaged with students by conducting weekly office hours to help debug students' assignment code

### TECHNICAL SKILLS

- Programming Languages: Python, Java, C++, C, JavaScript, SQL, MongoDB, Bash
- Web Frameworks: React.js, Node.js, Express.js, Pandas, Numpy, SciPy, PyGame, Pip
- Tools/Environments: Git, Windows, Linux, MacOS, gdb, Visual Studio, JetBrains, MS Office
- Languages: English, Mongolian

# **PROJECTS**

- Farm Stats Report Generator implementing data taken from StatCan C++ (STL, gdb), Git
  - Designed and implemented a code that is separated into object design categories
  - o Modelled using UML Diagrams for trouble-free project maintainability
  - o Implemented memory efficient data structures for reduced code run-time
- **N-Queens AI Solver** Implemented a Genetic artificial intelligence algorithm to solve the classic chess problem *Python (numpy, pygame)* 
  - $\circ~$  Used AI to place n queens on n x n chess board, where no queens attack each other
  - Applied chromosome representation to represent the chessboard and genetic operations like Mutation and Crossover to find the solution
  - o Developed a Pygame GUI to display the solution to the user