

Xi Zhu

4A Computer Science
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WORK EXPERIENCE

DB2 Compiler Continuous Engineering, IBM

Markham, Sept. 2014 - Apr. 2015

- Designed program based on scholarly essays that detects correlated columns in databases with statistical method
- Independently implemented the program outside of DB2 using C, which utilized multiple data structures, algorithms, and low-level programming
- Rewrote and Integrated the program into DB2 written in C++, which involved multiple components of the system and overall performance are considered. Teamwork and presentations are required - the final result showed 97% of the expected related columns
- Added new functions to web project that generates random test queries. Worked on both front-end (html, jQuery) and back-end (Java Servlets) - new function allows to add more constraints on generation request

Junior Analyst, AIG

Toronto, Sept. 2014 - Apr. 2015

- Developed programs and scripts with Python that assist data analysis, using JSON, sqlite, database management and libraries (e.g. numpy)
- Developed window program that submits analysis request with C# using given API
- Ran modelling and simulations in insurance program, queried databases, analyzed data and made reports

SKILLS

- **Proficient:** C, C++, Python, SQL
- **Intermediate:** Linux, Java, Html, CSS, jQuery, Node.js, PHP, Matlab, R, LaTeX, Machine Learning
- **Basic level:** Hadoop, MongoDB, NLP
- Experience with testing, debugging, version control
- Understanding of programming concept
- Recognized by managers for positive attitude, being detail oriented and a quick learner

PROJECTS

Data Analysis Demo Project

- A program that collects data from logged-in users through website or API, (implemented by Node.js) stores in database (Mysql), running machine learning algorithm that written in Python on collected data, and return the result to users
- The program is deployed on AWS: [54.209.48.221](#)
- Codes on Github://[StriveX/DataLoop](#)

Tetris in C++

- Implemented GUI Tetris game on Linux with partner. object-oriented programming is required

Tetris in Objective-C

- Extended the idea from academic project to personal project on iOS. Added new features such as peer-to-peer connection via given API
- Codes on Github://[StriveX/Tetris2](#)

WLP4 Compiler

- A program written by C++ that compiles a C-style language by scanning, tokenizing, assembling to machine language

EDUCATION

Candidate for Bachelor of Computer Science,

University of Waterloo, Sept. 2012 - Present,

- Intention of taking second major in **Statistics**
- **Cum. Avg:** 91.43/100; **Major Avg:** 89/100
- **Related Courses:**
 - Computer Science: OOP, operating system, data structure and algorithm
 - Statistics: data analysis, linear model
 - Optimization: network flow, graph theory

ACTIVITIES & INTERESTS

- Dean's List (all semesters)
- Data analysis related field, including machine learning, big data, cloud computing
- Travelling, cooking, running, and muscle training