Haotian Luo

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Education

September 2018 – present

BACHELOR OF APPLIED SCIENCE, UNIVERSITY OF TORONTO

Major in Computer Engineering, 4th Year

- **Computer Science course CGPA: 3.9/4.0**

RELEVANT COURSES: INTRODUCTION TO GAME DESIGN, ALGORITHMS AND DATA STRUCTURES, PROGRAMMING LANGUAGES, OPERATING SYSTEMS, INTRODUCTION TO ARTIFICIAL INTELLIGENCE

September 2017 – August 2018

BACHELOR OF APPLIED SCIENCE, UNIVERSITY OF TORONTO

Major in Chemical Engineering and Applied Chemistry, 1st Year

Skills & Abilities

· C, C++, Java, Python, C#, PostgreSQL, Unity, Git, Object-Oriented Programming

Experience

GAMEPLAY DEVELOPER, TIMEBALL, U OF T GAME DESIGN – 2021

- 2-player split screen 3D Sport Game, developed with two other programmers
- Implemented player movements, ball passing/shooting, round system, and tutorial level
- Wrote C# script for audio manager and imported Background Music/SFX into gameplay
- Cooperated with Modelling/Animation/Music team and set up group meetings/internal deadlines
- Game release on itch.io page: https://haotian-luo.itch.io/dodge-time

GAMEPLAY DEVELOPER, MILLIONAIRE, UKEN GAMES – 2020

Worked as a full-time software developer in *Millionaire* dev team for 12 months, starting May 2020.

- Worked with both Unity UI and C# code to develop game features and fix bugs
- Worked with reference data (JSON files), retrieved and modified values in tsv file when needed
- Helped QA tasks and tested for bugs, created tickets and reported to bug trackers
- Communicated with product team and art team, consulted for requirements
- Gained understanding in game developing procedures and game industry

PROGRAMMER TEAM LEAD, COMMUNICATION AND DESIGN, U OF T – 2019

- Developed a GIS ("Google Maps Project") in C++ as team leader and made major design decisions
- Built the app from scratch, imported data from OpenStreetMap API and stored in data structures
- Visualize the map from API with graphical library "EasyGL" in Linux environment
- Implemented A* Algorithms to find the shortest path on the map

Projects

· *Elemental Escape* – Unity 2D indie game development in progress

· *Sokoban* Game, building heuristic function and implementing Search Algorithms with Python

· *Pac-Man* Game, implementing multi-agent Minimax and Expectimax search with Python

· Linear/Logistic Regression, Neural Network, Probabilistic Models with Python/TensorFlow

· File System, Cooperative and Preemptive Thread Scheduling with C – operating system

· UDP File Transfer and TCP/IP Text Conference with C – socket programming

· Relational Algebra, JDBC, and Database Design with PostgreSQL

· Implementations of ORM with Python, multi-thread database server with RUST, and RPC with C++