ERIC XU

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OBJECTIVE — American Citizen

Seeking a full time Position or 2020 Internship/Co-op Position

EDUCATION

University of North Carolina at Chapel Hill August 2016 – May 2020
BS in **Computer Science; BA** in **Chinese** **Minor** in **Aerospace Studies**

Related Coursework:

Digital Logic	Data Structures	Compilers,
Discrete Mathematics	Algorithms	Introduction to Robotics
Computer Organization	Files and Databases	Quantum Computing
Chinese Ancient Philosophers	Chinese Business Communication	Literary Chinese
Advanced Reading and Composition	Virtual Reality	

SKILLS

Programming Languages:
Proficient: Java, Python, C/C++
Familiar: MIPS Assembly, Verilog, Bash, JavaScript, PowerShell, SQL, Unreal Blueprint
Platforms: Linux, Windows, Mac OS
Tools: Eclipse, CodeBlocks, Xilinx Vivado, Vim, Visual Studio, Docker, Unreal Engine 4, Github
Foreign Language: Mandarin Chinese (close to Native level)

PROJECT EXPERIENCE

VR Game ***Spring 2020*** ***Unreal Blueprint***
- Created a simple virtual reality game in Unreal Engine 4 to collect objects through different methods (ray casting, overlapping meshes, etc.) This project involved heavy usage of Blueprint instead of C++ to maximize exposure to the higher level language.

MiniJava Compiler ***Spring 2019*** ***Java, MIPS***
- **Implemented** a **Java Compiler** that processed a subset of Java.
- Written in **Java** and covered syntactic analysis, contextual analysis, and code generation.
- Created logic for the project. Examples include token parsing, identifying elements by means of abstract syntax trees, utilized given MiniJava machine code to load the program with assembly.

Intro to Robotics (Lego Mindstorm) ***Fall 2018*** ***Java leJoS***
- Programmed Lego EV3 Mindstorm using **Java** leJOS eclipse plug-in
- Included capabilities such as sensing, motion planning, and tracking

Digital Logic (Microprocessor) ***Spring 2018*** ***MIPS, C, Verilog***
- **Designed** and simulated a **microprocessor** with computer-aided design (CAD) tools
  - Implemented the ALU, Memory I/O and more onto the Nexys 4 FPGA
- Designed and tested hardware designs using hardware description language (**Verilog**)
- Used **MIPS** to test functionality of microprocessor in the form of a game.

Database Management ***Fall 2018*** **SQL, Python**
- Manipulated and Designed databases using SQL, Python and Jupyter notebook. Learned how to optimize queries to organize and manage data.

Twitter Bot ***Summer 2020*** **Node.js**
- Created and manipulated a bot using Twitter's built in API, as well as **Node.js** and the npm Twit package to retweet tweets with images of specific hashtags.