Zizhun Guo **Co-op/Intern Summer/Fall 2020**

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Zizhunguo.com

EDUCATION

Rochester Institute of Technology Rochester, NY Expected **Dec 2020**

Master of Science in **Computer Science**

Relevant Courses: Data Structures and Algorithms (Java), Object-Oriented Programming (Java)
Data Mining (Python), Web Services (Java), Database Systems (grade A), Computer Graphics (grade A)

Master of Science in **Game Design and Development** Rochester, NY Earned May 2018

Relevant Courses: Gameplay Prototyping (C#), Artificial Intelligence for Gameplay (C#), Game Development Processes, Capstone Design and Development (C#)

Chengdu University of Information Technology Chengdu, China Earned Jun 2016

Bachelor of Engineering in Electronic and Information Engineering

RELEVANT EXPERIENCES

Personal Website (HTML, CSS, JavaScript, Bootstrap, Jekyll, Git) May 2019 - present

- Employed Jekyll static site-generator to construct the backend framework of the website
- Utilized HTML, CSS, and Bootstrap to implement the frontend design of the website's layout
- Used Liquid to implement blog functionalities, i.e. page display by tags, varied page layouts
- Hosted on Github server with its domain name customized in zizhunguo.com

Customized SOAP Web Service Development (Java, JSP, DerbyDB) Mar 2020

- Developed a SOAP web service containing operations as querying records and updating tables on local back-end DerbyDB and deployed this API on the local Glassfish server
- Implemented the customized Message Handler to modify the SOAP header message in XML to enforce the Coordination Protocol deployed on the server-side web service program

Mashup Web Application consuming SOAP and REST APIs (Java, JSP) Feb 2020

- Developed a JSP dynamic web application using NetBeans and Glassfish server
- Consumed 1 SOAP and 3 RESTful APIs to implement a mashup web application that can show a track lyrics searched by its name generated by a random words API among all sorted searched results from a lyrics API database

3D Local Illuminated Image Synthesizing in Graphics(C++, OpenGL) Sep 2019 – Dec 2019

- Implemented an OpenGL program utilized 10+ constructed models, customized camera transformation, customized light sources, self-written vertex and fragment shaders using material properties to synthesize a 3D image
- Established the program framework capable of running multiple shaders in three types as Flat, Phong and Texture Mapping in the same time based on the OpenGL pipeline principles
- Developed a real-time camera positioning tool based on the principle of Frustum projection which accelerated the allocation efficiency by outputting and manipulating the 3D coordinates of Camera and constructed Objects

H2 OpenSource Database System Feature Enhancement (Java, H2) Oct 2019 – Nov 2019

- Enhanced the feature relating to data storage and indexing by adding a password data type in Open Source H2 DB
- Assisted to enhance the feature of aggregation function that is of selecting first value in a sorted order

Capstone VR Application Development (C#, Unity3D, HTC VIVE) August 2017 – May 2018

- Performed as the core developer and designer for both gameplays and level designs
- Developed the cross-platform real-time interaction between Virtual Reality end and PC end
- Used Unity Network High-Level API to implement all functionalities required through internet
- Reduced motion sickness and improved frame rate by applying Level of Details techniques to optimize rendering
- Used SourceTree for version control and Agile Methodology for project management in a team of six
- Exhibited final project at Imagine RIT annual event with 50+ attendants

OTHER EXPERIENCE

Student Employee at Bytes on The Run August 2017 – May 2018

Student work, Rochester Institute of Technology

- Conducted transactions for customers, conduct inventory and restocking

SKILLS

Java, Python, C/C++, C#, HTML, CSS, JavaScript, JSON/XML, SQL, Git

LAST UPDATE: 3/25/2020