

**EDUCATION**

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**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**

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**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

**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

**Data Mining Metaprogramming in 1D classifier** (Python)

Feb 2020

- Meta-programmed the training models in mentor program producing a trained program for validation and prediction
- Implemented the model classifying the dataset using Otsu's method with the lowest cost on Objective function and regularization for improved threshold decision
- Plotted the ROC curve to choose classifier based on recall and specificity

**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**

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**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**

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Java (1 yr), Python (1 yr), C/C++ (1 yr), C# (3 yrs), HTML(1 yr), CSS(1 yr), JSON/XML, MySQL, Git(3 yrs)

LAST UPDATE: 3/2/2020