Zizhun Guo

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EDUCATION

Rochester Institute of Technology	Rochester, NY	Expected Dec 2020

Master of Science in Computer Science
> *Relevant Courses: Data Structure and Algorithm (Java), Object Oriented Programming (Java), Computer Science Theory, Compiler Construction, Advanced Programming Skills (C#)*

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: Zizhunguo.com (HTML, CSS, JavaScript, Bootstrap, Jekyll, Git)　　　May 2019 - present
Personal Project
- Employed Jekyll static site-generator to construct the website's framework
- Used HTML, CSS, and Bootstrap to implement the design of layout
- Used Liquid to implement blog functionalities, i.e. page display by tags, varied page layouts
- Took Online courses from Udemy to acquire Bootstrap knowledge for website pre-design
- Used Git for version control

Compiler Construction for Haskell-like language to JVM code (Clojure, Emacs, JVM)　　　March 2019 - May 2019
Academic Project
- Accomplished using Clojure (Lisp dialect) to implement a compiler of a Haskell-type language Alto with large grammar. The code generated by it can be run on Java Virtual Machine
- Implemented a LL(1) parser that constructed a two-stacks structure for semantic analysis
- Optimized the compiler by transforming the declaration tree into a new simpler tree while type checking and reduced the number of forms, annotated calls and tail calls

Sudoku Application with UI (C#, Visual Studio, WPF, MVVM)　　　April 2019 – May 2019
Academic Project
- Created the Sudoku puzzles with unique answers by using backtracking algorithm
- Used Windows Presentation Foundation to design and develop the front-end of the game application
- Employed the MVVM design pattern to construct the application by implementing XAML to mark the layout

Capstone Game Application Development (C#, Unity3D, Virtual Reality)　　　August 2017 – August 2018
Tasks Project
- Performed as the core developer and designer for both gameplays and levels
- 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 optimized rendering
- Used SourceTree for version control and Agile Methodology for project management in a team of four
- 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

Languages	C#, Java, C/C++, Python, HTML, CSS, JavaScript, Clojure
IDE	Unity3D, Visual Studio, Sublime Text, Emacs, Eclipse, IDLE, PyCharm
Framework	Jekyll, Bootstrap, WPF, ASP.Net, OpenGL
Concepts	OOP, MVC, MVVM, ESC, Design Patterns, Unit Test
Version Control	Git, SourceTree, GitHub, Bitbucket