Zizhun Guo CO-OP Summer/Fall 2020

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EDUCATION

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

Master of Science in **Computer Science**
  Relevant Courses: Data Mining (Python, R), Web Services (Java), Object-Oriented Programming (Java)
  Data Structure and Algorithm (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

Data Mining Metaprogramming in 1D classifier (Python)   Feb 2020
  • Meta-programed 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

Mashup Web Application about Song Lyrics (Java, JSP)   Feb 2020
  • Developed a JSP dynamic web application using NetBeans and Glassfish server
  • Invoked 1 SOAP and 3 RESTful APIs to implement a mashup web application that can generate random words along with its name being searched from the sorted results in a lyrics API database

H2 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

3D Image Synthesizing in Computer Graphics (C++, OpenGL)   Sep 2019 – Dec 2019
  • Implemented an OpenGL program utilized 10+ constructed models, customized camera transformation, light source, 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

Data Mining using R on Adults Dataset (R)   May 2019
  • Implemented a Design Tree classifier calling API using R that gives the prediction accuracy to 83.43%
  • Performed data cleaning by analyzing multiple attributes and reducing its complexity to merged new attribute
  • Helped to create the organized the report of results and slides

Capstone VR Application Development (C#, Unity3D, HTC VIVE)   August 2017 – May 2018
  • Performed as the core developer and designer for both gameplays and levels 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 (1 yr), Python (1 yr), C/C++ (1 yr), C# (3 yrs), XML, HTML, CSS, R

VSCode, NetBeans, IDEA, Visual Studio, Sublime Text, Unity 3D, Jekyll, Bootstrap, SourceTree, Git

LAST UPDATE: 2/24/2020