Geoffrey Ding

geoffreyding.com · gding3@illinois.edu · github.com/MaybeSF · 217-419-3688

EDUCATION

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

B.S. in Computer Science
Exp. Apr. 2023 | Urbana, IL
College of Engineering
Chancellor's Scholar
Tech. GPA: 3.88 / 4.0
Cum. GPA: 3.79 / 4.0

UNIVERSITY OF ILLINOIS LABORATORY HIGH SCHOOL

Grad. Apr. 2020 | Urbana, IL
Cum. GPA: 3.95 / 4.0

COURSEWORK

UNDERGRADUATE

Data Structures and Algorithms
System Programming
Software Design Studio
(Taken Class & 1x Course Assistant)
Computer Architecture
User Interface Design
Game Development

SKILLS

PROGRAMMING

High Comfort and Experience
C++ • Java • C# • C
Comfortable
Python • HTML • CSS • Assembly
React • D3 • Node.js
Familiar:
Android • Unity • Unreal • MySQL
Artificial Intelligence • Multi-Threading
Unit Testing • Genetic Algorithm
Languages:
English • Mandarin • Shanghainese

PROJECTS

POLLOCK Particle System Engine

July 2017 – Present | C++
- Fully customizable particle system editor with OpenGL. Exported into YAML files. Multi-threaded with synchronous duo render queue
- Mapped out GUI using IMGui to allows users to modify particle system's properties (emission rate, color, etc)
- Created animation and texture handlers to allow users to attach animated textures onto the particles

JUMP HIGHER! w/ Genetic Algorithm AI

Aug. 2020 – Feb. 2021 | Java
- Created a game inspired by Jump king with AI controlled entities trying to get to the top of the map as fast as possible using the genetic algorithm.
- Used ImGUI to allow users to create levels on their own, change proprieties of the game, and customize the AI training on their level
- Used YAML exporting to allow easy saving of levels and models. Included functionality such as viewing past models and generations

EXPERIENCE

TTEK EDUCATIONAL AR | Head Developer Creative Lead

Nov.2021 – NOW | Champaign, IL
- Led development of Educational AR application, focusing on utilizing AR technology to help students learn via exploring
- Designed and developed application via Unity utilizing unity AR frameworks
- Conceptualized the design of the application from user experience data
- Developed student grade tracking algorithm that helps parents and teachers see where students could do to improve their performance.
- Led weekly meetings, directing timeline goals and progress checkups
- Solid experience with several tool such as Git, React, and Unity

DREAM COLLEGE US LLC | Computer Science Tutor

Apr 2020 - Aug. 2021 | Warren, New Jersey (Online)
- Taught Java intro programming classes to middle school and high school students virtually. Students at the end of the course would be prepared enough for USACO Bronze competitions
- Also taught classes on Data Structures in C++ and game programming in Unity
- Developed and created the curriculum myself. Created challenging classwork and homework problems that help students think about the material taught and test themselves on the content they learned.

CAST N' CATCH | Head Developer

Jan. 2019 – Jan. 2020 | Champaign, IL
- Led development of the app with a small team (4-5 people) of developers, artists, and sound engineers. Led daily scrum and generated innovative ideas.
- Designed and developed original prototype of app within Android Studio
- Designed an algorithm to help determine the catch rate of different types of fish depending on location, time of day, and bait used.
- Designed and developed the UI behind bait selection and overhauled the sonar mechanisms
- Solid experience with several tool such as Git, Android Studio, and Unity