Jackson D. Hutson
Software Engineer/Game Engineer

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Link to Website: www.jacksondhutson.com/

Education

BS in Computer Science w/ Emphasis on Video Game Design, University of Utah College of Engineering (2017 – 2021)

Skills

Languages: Java (7 years), C (4 years), C++ (4 years), C# (5 years), Javascript (1 year), Python (1 year), Assembly (MIPS) (1 year), BASIC (2 years)

Tools: Studio, GitHub, Perforce, GitBash, GDB, Valgrind, EMACS, Eclipse, Pluma, Google Drive, Agile, MVC, Unity Collab, Google Sheets, Excel, Agile Methodologies

Experience

Game Engines:
- **GameMaker –** 7 years of experience
- **Unity –** 5 years of experience
- **Unreal Engine 4 –** 3 years of experience

Game Engineer:
- **Catzooka Studios LLC** - (September 2020 – May 2021)
- **Clockwork Forge Games LLC -** (January 2018 – May 2020)

Projects:

Nyaa-kuza!! (Seventeen people, Unity C#):
- Developed a complex, interactive AI system featuring Behavior Trees, Blackboards, State Machines, and weighted decisions
- Made a flexible, wave-based spawning system for enemies by making a custom inspector in Unity
- Worked in an environment containing multiple codebases from Unity's new proprietary input system to Doozy's third-party UI system

Dash n' Bash (Seven people, Unity C#):
- Worked on a local multiplayer mode with controller-to-player memorization and screen scaling
- Developed various behaviors for hazards with kinematics, raycasts, and vector-based math
- Created an interactive tutorial through dialogue systems and player input detection

Advance Emblem (Solo, Java):
- Built a flood-fill algorithms to determine possible areas the player could move and attack with their units
- Used Random Number Generation to create variances in damage output

Hyperborean Charter (Five people, Unity C#):
- Created flexible Dialogue System and a keywords system that would fill-in dialogue with important info though text parsers
- Made AI behaviors for the bandits that would steal player's items with Dijkstra's pathfinding algorithm

Classes:
- **EAE 4500 Capstone –** Created and published a game under Agile Methodologies in a simulated work environment
- **CS 4150 Algorithms –** Developed and studied fast and cost-effective algorithms and data structures for graph traversals, dynamic programming, and searching and sorting algorithms
- **CS 4300 Artificial Intelligence –** Created and studied advanced Decision algorithms through Constraint Satisfaction, Markov Decision Processes, and Bayes Net
- **CS 3505 Software Practice II –** Wrote C++ software in Linux-based environment and created a new image file format in FFMPEG

Activities

Student Life Center – Supervisor at Gear Central while a full-time student providing valuable customer service to improve guest experience at the University Fitness Center (Attendant: Jul 2018 – Aug 2020) (Supervisor: Aug 2020 – May 2021)

University of Utah Student Board of Sustainability – Helped plan social events for advocating Sustainability and worked at Board's Events (Member: September 2017 – May 2018)

GameCraft – Worked as an engineer on Game Jams on Campus (Member: September 2017 – May 2021)

Awards & Recognition

- University of Utah's School of Computing Deans List for Fall 2017, Spring 2018, and Summer 2019
- Member of Phi Eta Sigma UofU Castle Chapter National Honor Society (2018 - 2022)
- Member of the National Society of Leadership and Success at the UofU (2019 - 2022)

Interests

- Hiking, Collecting and playing Games, Interacting and helping people, Learning and improving my craft