Brent Goldstein

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Education

Rensselaer Polytechnic Institute **Graduation: May 2024**
Bachelor of Science in Computer Science and GSAS (Games and Simulation Arts and Sciences) GPA: 3.36

Skills

Software Skills

Operating Systems (Windows, Mac OS X, Linux, Ubuntu) | IDE's (Visual Studio, VS Code, Rider, Eclipse) | Game Engines (Unreal Engine 4, Unreal Engine 5, Unity, Godot, Game Maker Studio 2) | SCM/Version Control (Perforce, Git, GitHub) | Microsoft Office (Word, Excel, Powerpoint) | Adobe (Photoshop, Illustrator, Premier) | Automated Testing Frameworks (Gauntlet, Junit, Microsoft Unit Testing Framework for C++) | Clip Studio Paint | Blender | ImGui | Machine Learning Tools (Pytorch, TensorFlow) | Agile Development | CMake | OpenGL

Programming Languages

Highly Proficient: C++ | Java | C# | Python | Javascript (NodeJS, ReactJS) | TypeScript | C
Proficient: MIPS | Prolog | Scheme | Haskell | HTML/CSS | Unix, Git | SQL

Coursework

Data Structures, Algorithms, Principles of Software, Foundations of Computer Science, AI and Machine Learning, Computer Organization, Programming Languages, Game Development, Game Design, Game Architecture, Game AI, Calculus, Linear Algebra, Differential Equations

Soft Skills

Strong work ethic, Self-motivated, Organized and quick to learn, Enthusiastic about learning, Excellent communication skills in written and spoken English, Expertise in problem-solving and analytical skills, Refined interpersonal skills for collaboration with colleagues and stakeholders, Experience with multi-media and multi-disciplined teams

Work Experience

Amplifier Game Invest: Stockholm, SE (September 2023 - January 2024)
Contractor Junior Game Programmer and Game Designer (ABC)

- Implemented flexible full-stack code in Unreal Engine 5 using C++ and Blueprint, utilizing software best practices to ensure performance.
- Utilized data analysis skills to create and maintain spreadsheets for fine-tuning game balance,
- Directed documentation and implementation of game mechanics and game design, including puzzle design, level design, and enemy AI.

Curtail Inc.: Anaheim, CA (June 2023 - August 2023)
Software Engineering Intern

- Conducted in-depth research on HTTP/2 and gRPC to enhance the company's technical capabilities, reworking existing C++ architecture.
- Led in migrating the existing framework to support HTTP/2 and gRPC protocols seamlessly.
- Collaborated with the development team to ensure the successful integration of HTTP/2 and gRPC into the project.
- Contributed to the optimization of network performance through the implementation of HTTP/2 and gRPC best practices.

Warner Bros. Games: Burbank, CA (June 2022 - August 2022)
Software Engineering Intern

- Spearheaded the development of an automated testing framework for Unreal Engine 4 integration with internal game management infrastructure. Collaborated with team members and company branches, overseeing the pipeline and version control through Perforce.
- Created and was solely responsible for a full-stack plug-in for Unreal Engine 4 using C++ to analyze demo software for copyright infringement by comparing screenshots, achieving 100% accuracy.
- Wrote unit tests using C++ and assessed them with ImGui, Gauntlet, and the created automated unit testing framework.
- Attained proficiency in agile development and the software development life cycle, employing tools such as JIRA, sprints, kanban, etc.

B-Games: Sole Proprietorship: Upper Saddle River, NJ (September 2019 - February 2024)
Owner

- Founded a sole proprietorship that develops, designs, codes, manages, and markets games and software.
- Coded the B-Games website using HTML5/CSS and Javascript: https://bman7222.github.io/
- Developed multiple open-source prototypes using Unity Engine, C#, and Python. Can be found on GitHub: https://github.com/bman7222
- Completed over three game jams with the RPI Game Jam club, publicly available on Itch.io: https://gorillabman.itch.io/

Projects

Artificial Intelligence Agents: Troy, NY (January 2023 - March 2023)
Programmer

- Assumed leadership in all listed projects. Built artificial intelligence agents in Unity using C# that handle dynamic decision-making.
- Constructed table-based and neural network-based Q-Learning for AI agents' behavior selection.
- Utilized Python and Anaconda for training Unity Machine Learning Agents, employing PyTorch for running machine learning agents and TensorFlow for graphing and analyzing their results.
- Developed a GPT-integrated text-adventure game in Python, trained a custom model to discern player actions and intentions from the input text, and made decisions based on the game's current state.
- Implemented a custom-made Dijkstra algorithm for creating heat maps for AI agents' pathfinding.

Bottled Up: Troy, NY (January 2023 - March 2023)
Programmer, Game Designer, Level Designer

- Led design and implementation for character and combat features, including combat encounter design, gray boxing levels, and enemy AI.
- Created and balanced game systems and managed version control through Perforce.