Patrick Abiney

Senior Software Engineer & Manager with over a decade of experience in applications, games, embedded systems, & robotics. Proven ability to lead cross-functional teams, optimize processes, and deliver polished, high-quality software, Al, & game experiences across diverse platforms.

EXPERIENCE

Snail Games USA, Los Angeles, CA — *Sr. Unreal Engineer & Manager* MAY 2024 - PRESENT

Babaroga, Chicago, IL — *Sr. Software Engineer & Manager* FEB 2021 - MAR 2024

Blind Squirrel Games, Santa Ana, CA — *Programmer II* JAN 2020 - FEB 2021

TRIPP, inc., Los Angeles, CA — *Sr. Software Engineer* JAN 2018 - DEC 2019

Human Head Studios, Madison, WI — *Gameplay Programmer* JUL 2015 - MAY 2016

EDUCATION

Northwestern University, Evanston, IL — *M.S. Robotics* SEP 2016 - DEC 2017

Full Sail University, Winter Park, FL — B.S. Game Development AUG 2011 - JUN 2013

PROJECTS

Cultivation Project — Third person survival crafting RPG for Steam. MAY 2024 - PRESENT

- ❖ Lead & managed engineers for Snail Games USA's development.
- Provided technical designs for a language based magic system.
- Developed the magic system's core & integrated with GAS.
- Utilized OpenAI's REST API for LLM driven spell creation.

Technologies: OpenAI, Unreal Engine 5, Visual Studio, Perforce, C++, Blueprints, Jira, Confluence.

The Lord of the Rings: Return to Moria — Third person survival crafting RPG for Epic, Playstation 5, & Xbox Series X & S.

AUG 2023 - DEC 2023

- Lead & managed engineers for Babaroga.
- Debugged character, combat, gameplay, networking, & replication.
- Optimized custom environment queries & state machines.

Technologies: Unreal Engine 4, Visual Studio, Perforce, C++, Blueprints, Jira.

Five Nights at Freddy's: Security Breach - RUIN — First person, 4th dimension, horror DLC for Playstation 4 & 5 & Steam.

FEB 2022 - AUG 2023

- Lead & managed engineers for both Babaroga & an external client.
- Crafted AI using behavior trees, AI directors, & environment queries.
- Developed systems, levels, & AI features with designers & animators.
- Expanded 4th dimension travel system to improve UX & work with AI.
- ♦ Managed time estimates, & kept engineering on or ahead of schedule. **Technologies:** Unreal Engine 4, Visual Studio, Perforce, C++, Blueprints, Jira, Confluence.

Five Nights at Freddy's: Security Breach — First person horror game for Epic, Playstation 4 & 5, Steam, Switch, Xbox One, & Xbox Series X & S. FEB 2021 - FEB 2022

- Lead & managed engineers for Babaroga.
- Developed all Boss Battles along with seven security office missions.
- Combined behavior trees & state machines for varied user experience.
- * Engineered systems for animation, game elements, & interactables.

Technologies: Unreal Engine 4, Visual Studio, Perforce, C++, Blueprints, Jira, Confluence.

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TECHNOLOGY SUMMARY

Artificial Intelligence

Boids, Behavior Tree, Genetic Algorithms, Hierarchical Task Network, State Machine

Game Engines & Development Frameworks

ROS, Godot, Unity, Unreal

Integrated Development Environments

Android Studio, Microsoft Visual Studio, MPLAB X, Rider

Languages

C/C++, C#, Python, x86, JSON, SQL, XML, HLSL, GLSL

Machine Learning APIs

OpenAI, OpenCV, Scikit-learn, Surprise, TensorFlow, TFLearn

Machine Learning Techniques

Computer Vision, Large Language Models, Neural Networks, Recommendation Systems

Platforms

Android, iOS, Epic, Meta, Playstation 4 & 5, Steam, Switch, Windows, Xbox One, Xbox Series X & S

Sprint Planning & Production

Confluence, Gantt Charts, Google Docs, Hansoft, Jira

Version Control

GIT, Google Code, Perforce, Subversion, Team Foundation Server