Cody Flanagan

Programming, simulation & systems design

Owenton, Kentucky | LinkedIn: codyflanagangamedesign | GitHub: cody220022-jpg

Full Sail student with a firm foundation in C++ and Python and a firm understanding of Unreal Engine. I led development of a Python combat simulator that connects implementation, repeatable testing and systems decisions.

SKILLS

- C++
- Object-oriented programming
- Git / Perforce revision control
- ClickUp
- Spreadsheet formulas & functions
- Data structures
- Combat simulation
- Playtesting & bug reporting
- Implementation review
- KPI & funnel analysis
- Python
- Event-driven programming
- Agile / Scrum
- Figma / FigJam
- UI prototyping
- State machines & game AI
- Regression testing
- Iterative development
- AI-assisted development
- Data visualization
- Unreal Engine
- Debugging
- Sprint planning & stand-ups
- Excel / Google Sheets
- MATLAB
- Systems modeling
- Requirements definition
- Build packaging
- Technical documentation
- Probability simulation

SELECTED PROJECTS

Idle-RPG Combat Simulator

Independent project | Python, Numba | 2026

- Led development with AI coding assistance; owned combat requirements, implementation review and balance decisions.
- Required streaming team summaries and repeatable comparisons to support broad screening and detailed battle investigation.
- September 8 verification: four engines reproduced 353,760 battle rows each across 100 fields with zero differences.
- Required rule-derived checks and deliberate defect testing; the recorded gate passed 513 checks and caught all 154 seeded rule defects.

Tile-Based Puzzle Game

Individual coursework project | Unreal Engine 5 | March 2026

- Built the Phasing Power-Up, implemented and extended a classmate's Directional Force Tile specification, and integrated them in puzzle levels.
- Used ClickUp plans and successive sprints to build, improve and refine the individual project.

Tempero Ludum - Skirmish

Original two-player board game | February 2026

- Iterated rules and starting formations through recorded playtests and peer feedback; compared alternative action costs against the intended strategic choices.

EDUCATION

Full Sail University - B.S. Interactive Technology, Game Design concentration; expected August 2027.

Full Sail University - Associate degree completed July 2026.