

Peter Francis

rockretep.net

peter@rockretep.net

Bloomington, IN, United States

SKILLS AND EXPERTISE

- **Programming Languages**
 - + \geq 4 years experience: Bash, C#, Java, JavaScript, Lisp(s), Lua, Python
 - + \lesssim 4 years experience: Assembly, C, C++, Go, Haskell, Rust
- **Game Development**
 - + Gameplay scripting
 - + Game design concepts, design documents
 - + Shaders and shader-graphs, Cg/HLSL/GLSL
 - + Unity (C#, scripting, shaders)
 - + Unreal Engine 4 (C++, scripting, blueprints, materials, set dressing)
 - + Godot (GDScript, C#, scripting, shaders)
- **Software Development & Production**
 - + Agile, Scrum, JIRA
 - + Version control, Git
- **Artificial Intelligence & Computing**
 - + Formal logic, automata theory
 - + Agent scripting, steering, path-finding
 - + Concept experience: Bayesian networks, behavior trees, blackboard systems, decision trees, heuristics, ML techniques, neural networks, state machines
- **Server Administration**
 - + Software experience: POSIX, Shell, SSH, FTP, Apache, MariaDB, MySQL, Docker, web servers, game servers
- **Digital Content Creation**
 - + Web design (HTML, CSS, SCSS), Blender, L^AT_EX

PROFESSIONAL EXPERIENCE

- **Game Programmer — *OddestSea***
oddestsea.com | June 2018 - April 2020
 - + Created game code, visuals, design, documentation (C#, Cg/HLSL/GLSL, Unity)
 - + Researched and developed solutions for complex tasks, such as a water shader and buoyancy system
 - + Authored original design and managed team formation
- **Undergraduate Instructor — Introduction to Artificial Intelligence**
Indiana University, CSCI B351 | August 2018 - May 2019
- **Undergraduate Instructor — Introduction to Game Development**
Indiana University, CSCI B453 | January - May 2020
 - + Created and organized course structure, assignments, and documentation
 - + Taught and assisted students in coursework
- **Game Development Camp Instructor**
Indiana University, Media School Game Camp | Summer 2017, 2018, 2019
 - + Managed and organized students in week long camps
 - + Instructed and assisted students studying game development (Unity, UE4, Construct, Godot)
- **Game Programmer — *The Astro Parcel Service***
vicensludum.com | May 2019 - April 2020
 - + Contracted to assist with technical development of *The Astro Parcel Service*
 - + Responsible for developing AI of game's NPC adversary
- **Custom OCR Tool Development Consultant**
Indiana University, Media School Development Project | May - August 2019
 - + Contracted to develop tool to parse and record data from a game for use in a game statistics and analysis class
 - + Used various computer vision tools, such as Tesseract and OpenCV
- **UI Development Consultant**
Indiana University, SICE Research / Development Project | May - August 2018
 - + Contracted to develop a User Interface for a game research / development project (C#, Unity)

EDUCATION

- **B.A. Computer Science & B.S. Game Design**
Indiana University, Bloomington, IN | August 2016 - August 2020
 - + Concentration in Artificial Intelligence

PERSONAL AND VOLUNTEER EXPERIENCE

- **Gamedev@IU - Officer**
May 2018 - May 2019, gdiu.org
 - + Assisted running student-led game development club
- **Personal Game Development & Programming projects**
2011 - Present