

## Senior Capstone Project Proposal

### **Project Team ID: 5**

### **Project Title: Game Development with Unreal Engine**

#### **Team Members**

<b>Member</b>	<b>Name</b>	<b>Email</b>
Team leader	Steven LaGoy	lagosm01@pfw.edu
Member 1	Logan Faulstich	faullw01@pfw.edu
Member 2	Riley Tate	tater02@pfw.edu
Member 3	Harrison Niswander	niswhd01@pfw.edu
Member 4	Zachary McGill	mcgizt01@pfw.edu
Member 5	Ricardo Saldana-Cervantes	saldr02@pfw.edu

#### **Faculty Advisor**

Name / Title	Professor Thomas Bolinger
Office	ET 125N
Phone	260-481-6184
Email	bolitj01@pfw.edu

#### **Project Sponsor (Optional)**

Contact person	Jared Lehman, Esq.
Contact info	<a href="mailto:agapitostudios@outlook.com">agapitostudios@outlook.com</a>
Company name	Aga Pito Studios, LLC
Address	Fort Wayne, IN 46807, US

#### **Project Description**

<b>Type</b>	<b><u>Application development</u></b>	Research-focused	Information systems
<b>Abstract</b>	The project focuses on developing a small, open-world, puzzle-focused video game. The working title for the game is "Island Song". Players will begin stranded on a grey-scale, mostly silent island. To complete the game, players will bring color, life, and music back to the island by solving puzzles spread throughout the island. Five unique sections will divide the island, each focused on a different instrument family (winds, brass, percussion, keys, and strings). When the player completes a final puzzle for the section, color will be		

	<p>restored, and music will start to play in that section.</p> <p>The game will be designed using Unreal Engine 5. Some design and animation assets will be outsourced from the Fab Store. However, world design and coding will be completely built in-house. The music will similarly be student-created, arranged and performed either by team members or by commissioned student(s) within the PFW School of Music.</p> <p>The goal of the project is to create a polished game experience, including immersive world design and challenging puzzles. Beyond technical accomplishments, this project will highlight indie development style through a small and enjoyable playable environment.</p>
<b>Requirements</b>	<ul style="list-style-type: none"> <li>• Create an interactive game experience in Unreal Engine 5</li> <li>• Puzzle system with range of challenging or unique puzzles</li> <li>• Progress-tracking system (achievements, unlocking new areas)</li> <li>• Gravity and physics in a 3D space</li> <li>• Unique look and visual/audio style in the game world</li> <li>• AI system to compete against the player</li> </ul>
<b>Optional features</b>	<ul style="list-style-type: none"> <li>• Five unique puzzle zones</li> <li>• Smaller side puzzles spread throughout the world</li> <li>• Non-playable character development and interactions</li> <li>• Project Upload to the Steam Store</li> <li>• Player inventory management system</li> </ul>
<b>Required resources (HW/SW)</b>	<ul style="list-style-type: none"> <li>• GitHub &amp; Git LFS – Version Control</li> <li>• Jira – Scrum Project Management</li> <li>• Microsoft Teams – Team Communications</li> <li>• Microsoft Outlook – Exterior Communications</li> <li>• Visual Studio – Code Development</li> <li>• Microsoft SharePoint – Document Management</li> </ul>
<b>Technology disclosed? If so, what?</b>	<ul style="list-style-type: none"> <li>• Unreal Engine 5 – Game Development Engine</li> <li>• Fab – Game Assets</li> </ul>
<b>NDA or IP assignment agreement requested?</b>	NDA or IP assignment agreement has not been requested.
<b>Other notes</b>	

CS46000 Senior Capstone Project I

Fall 2025

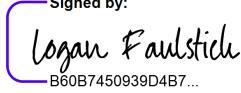
As a member of the Project Team, I agree to attend project meetings regularly, participate in developing project actively, and make a full effort to complete this project as proposed.

Team Leader

Signed by:  
  
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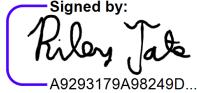
Date 9/19/2025

Team Member 1

Signed by:  
  
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Date 9/19/2025

Team Member 2

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Team Member 3

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Team Member 4

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Date 9/19/2025

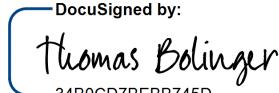
Team Member 5

Signed by:  
  
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Date 9/19/2025

As the Faculty Advisor, I agree to meet regularly with the student project team, manage their activities, and participate in the evaluation of project deliverables.

Faculty Advisor

DocuSigned by:  
  
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Date 9/22/2025

As the Project Sponsor, I agree to communicate with the student project team as needed to provide information related to project scope, requirements, assumptions, constraints or other items that may impact project success, and to participate in the evaluation of project deliverables.

Project Sponsor

DocuSigned by:  
  
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Date 9/24/2025

**Technology and ECCN:**

"If your project involves 'technology' that is either (a) not publicly available or (b) includes proprietary source code (not executable files), then it requires an ECCN." 'Technology,' for this purpose, is defined as "information necessary for the development, production, use, operation, installation, maintenance, repair, overhaul or refurbishing of an item. Technology may be in any tangible form, such as written or oral communications, blueprints, drawings, photographs, plans, diagrams, models, formulae, tables, engineering designs and specifications, computer-aided design files, manuals or documentation, electronic media or information revealed through visual inspection."

Interactive tool to determine ECCN:

<https://www.bis.doc.gov/index.php/export-control-classification-interactive-tool>

**NDAs and IP Assignments:**

The sponsoring company typically has NDAs and IP assignment forms that it wishes to use. Neither the NDA nor the IP assignment is an agreement with Purdue directly; these agreements are between the students and the sponsoring company. Of course, our office can review the company-provided documents to be certain it aligns with Purdue's standards. Alternatively, our office has draft agreements which we could provide for the sponsor's use. Again, as NDAs are between the student and the sponsor, Purdue cannot be a party to or advise the sponsor or the student on the NDAs, other than to outline some basic expectations as to fairness and suitability of the NDA to a student project.

**Sponsor Acknowledgements:**

By way of background, Purdue University professors who have senior capstone class projects involving outside sponsor companies notify our office so that we can prepare an acknowledgement form for the sponsoring company's completion. This is not a contract but an acknowledgement form signed by sponsoring companies which lays out Purdue's guidelines regarding class projects and outside company inputs, potential export control issues, and student intellectual property. Some sponsoring companies offer a monetary donation to the project, but that is not a requirement.