

# Matthew Cech

## Gameplay Engineer and Engineering Manager

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I'm a Software Engineer that loves to help people and projects grow! I'm a fan of national parks, I hoard plants, and I make watercolor paper by hand. My goal is to help others create and explore, through games, tools, or other products.

### Work Experience

#### Gameplay Engineer

Dec 2024 - Present

Zenimax Online Studios

- Developed gameplay features in a custom C++ ECS engine, focusing on well documented and high performance gameplay code with a distributed multiplayer-first design in mind on an unannounced project.
- Responsible for character dialogue playback as well as related asset management.
- Implemented both in-game and out-of-game tooling to improve iteration time and reduce overhead for other both engineering and other disciplines.
- Worked closely across multiple disciplines with designers, writers, and animators to plan, iterate on, and implement new systems for content authoring.
- Architected and implemented distributed solutions for gameplay and cinematic features

#### Software Engineering Manager

Dec 2021 - Jun 2024

Intercept Games

- Accountable for three gameplay and UI oriented feature teams, deliverables, and support for a large scale 3D Unity game, Kerbal Space Program 2.
- Accountable for developing and expanding content heavy release processes for updating a live product, and gained experience managing start to finish patch delivery.
- Provided developers with support with Perforce, Visual Studio, and Rider while regularly pair programming to tackle complex debugging or development problems.
- Managed 5 to 8 reports at a time and coordinated with contractors, embracing diversity across engineers, acting as a hiring manager for multiple roles
- Created and executed on career growth and development plans for reports in the form of 1:1s, reviews, gap analysis, and goal setting while working to provide consistent support.
- Advised reports and other leadership on how to identify and resolve process and workflow issues for developing new features and maintaining existing features.
- Fostered a culture of engineering excellence and robust programming to reduce bug regression rates and promote maintainability of both existing and new code.

#### Software Engineer

Dec 2019 - Dec 2021

Intercept Games

- Implemented Map, UI, and Vehicle Editor features, and provided support for full feature development cycle.

- Developed debugging and iteration-focused tools to assist content developers.
- Managed localization pipeline across disciplines, creating and maintaining surrounding tooling for 12 languages.

## **Software Engineer**

May 2018 - Dec 2019

### **Star Theory**

- Created and maintained asset workflow for designers and artists to author over 400 separate large assets, used as in-game parts in Kerbal Space Program 2.
- Implemented improved loading and serialization systems, reducing performance impact by 3x and improving ability for others to iterate on the code.
- Architect and main developer for a 3D in-game vehicle editor with three building modes.
- Drove rapid prototyping for game systems, working closely with design to find the fun.
- Implemented Lua scripting for faster design iteration on gameplay elements and assets.

## **Software Engineering Intern**

Jun 2017 - Apr 2018

### **DigiPen R&D**

- Developed and documented robust JavaScript and C tools to create a drag and drop IDE and educator toolset called DragonDrop, a teaching tool for summer classes.
- Leveraged resulting product for teaching summer classes of 20-25 primary school students, taking learnings and iterating on both software and curriculum, requiring consistent communication skills and flexible problem solving.

## **Founder and Lead Developer**

Jun 2019 - Present

### **Loam LLC**

- Founded studio for software and game development, consulting, and art supplies sales, consulting on a wide range of websites to meet customers' business and personal goals.
- Developed a relaxed 2D mobile game, Bubbles in Unity with C#, and shipped it on Google Play with multiple game modes and level editing tools.
- Created a competitive clicker called Rat Game in Unity, shipping on itch.io featuring an online highscore system in Javascript that leveraged via Node.js and NGINX.
- Actively maintain the ASCIIPlayer tool, a command line audio player and visualizer written in C++ using FMOD.

## **Core Skills**

C#, C++, Tools Development, ECS, Career Development, Problem Solving, Unity 3D, Product Development, Debugging, Technical Design, Gap Analysis, Visual Studio, Rider, Cross-platform development, Communication, Process Revision, Process Analysis, Collaboration

## **Education**

### **DigiPen Institute of Technology**

Sep 2014 - Jun 2018

#### **Bachelor of Science Computer Science**

- 'US FIRST Robotics' Scholarship recipient