

SKILLS

Backend/Systems

- Unity's Jobs + DOTS
- Multithreaded conversion
- C#, NodeJs, Sql
- Data-driven design
- Cloud infrastructure

Tooling

- Unity editor extensions
- ShaderGraph, VFX Graph
- Designing custom editor authoring workflows
- Git and Perforce
- 3D modeling in Blender

Specific applications

- Procedural mesh generation
- Behavior tree NPC AI
- ScriptableObject config
- Real time simulations
- GPU acceleration

EDUCATION

BS Software Engineering

Milwaukee School of Engineering | 2017

EXPERIENCE

Seeb Defender fraculation.com/blog/seeb-defender-project/

12/26/2020 – Current

- Built a farming simulation, tower defense, roguelite around a dynamic plant simulation
- Managed a large project and reached target 60FPS with all systems
- Used scriptable objects to accelerate game design and configuration
- Designed realism-inspired genome simulation (github.com/dsmiller95/Genetics)
- Skills: Unity3D, C#, DOTS, 3D modeling, Performance Optimization

L-System language extension fraculation.com/blog/lindenmayer-implementation

12/26/2020 – Current

- Procedural mesh generation language highly optimized with multithreaded Jobs
- Extended the Unity editor to compile custom language files into mesh generators
- Skills: Unity3D, C#, Unity Jobs, Unity library management, Unit and Performance testing

Spideyboi fraculation.com/Spideyboi/

07/31/2020 – 08/03/2020

- A 2D puzzle game built in a weekend, in which the player programs a spider to build a web

AWS developer @ Milwaukee tool

01/11/2021 – 06/18/2021

- Migration to elasticsearch from Sql server using Kinesis Consumer Library and AWS Lambda in a CQRS pattern
- Skills: C#, Python, Typescript, Kinesis, AWS Lambda, Git, Terraform, dynamodb

Full stack Angular Application developer @ Sympplr Cactus, API Healthcare

08/28/2017 – 01/11/2021

- Developed full-stack Angular web applications, in a small team and as part of up to 6 teams
- Designed near real-time data processing architecture to support fast searching in the cloud
- Skills: C#, WebAPI Typescript, Python, Kinesis, SQL, Agile, Angular, Git