

# SZUN KIDD CHOI

Game Designer and Programmer

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🌐 juuu-jiii.github.io/portfolio

## EDUCATION

**Rochester Institute of Technology**

Aug 2019 – May 2023 (expected)

- B.S. in Game Design and Development, minoring in Mathematics
- 4<sup>th</sup> year, 4.00 Cumulative GPA

## SKILLS

**Languages**

C#, C++, C, JavaScript, Python 3

**Tools/Technologies**

Unity, Unreal Engine, Valve Hammer Editor, MonoGame, PixiJS, Maya, Git, OpenGL, DirectX 11

**Process**

Agile and Scrum Project Management, Trello, Jira, TFS

## SELECTED PROJECTS

**floG** – Game Designer, Level Designer, Multiplayer Developer (Team Size: 4)

13 weeks

**Unreal 5, Blueprints Visual Scripting, AdvancedSteamSessions plugin, Git, Trello**

[juuu-jiii.github.io/portfolio/floG](https://juuu-jiii.github.io/portfolio/floG)

- Online multiplayer golf game where players can toggle moving obstacles and dynamic hazards to derail opponents
- Designed multiplayer systems and levels to encourage confrontation and interaction among players
- Added online matchmaking using both Steam and IP address, and networked player movement and interactions

**The Tunnels** – Game Designer, Level Designer, Gameplay Programmer (Team Size: 4)

6 weeks

**Unity3D, C#, Git, Trello**

[juuu-jiii.github.io/portfolio/the-tunnels](https://juuu-jiii.github.io/portfolio/the-tunnels)

- First-person psychological horror walking sim where players escape an entity following them to their dorm room
- Designed gameplay, levels, and narrative to facilitate pacing and tension, and maintained core documentation
- Programmed enemy AI movement using Unity's navmeshes and developed player interaction system

**TapRacing** – Sole Developer

7 weeks

**Unreal 4, Blueprints Visual Scripting, Git**

[juuu-jiii.github.io/portfolio/tapracings](https://juuu-jiii.github.io/portfolio/tapracings)

- Isometric reinvention of the 3D racer; cars can strafe sideways and turn 90 degrees instantly in either direction
- Designed a simple and snappy handling model to facilitate fast-paced, reflex-reliant gameplay
- Got a grasp of Unreal 4's functionality by implementing everything (except the car model) using inbuilt editor tools

## EXPERIENCES

**Niantic, Inc.** – Human AR Intern

May – Aug 2022

**C++, C, C#, Unity3D, MediaPipe, TensorFlow Lite, Git, Jira**

- Prototyped pose detection and landmarking capability for Lightship ARDK by porting over MediaPipe source code
- Built Unity mobile app to run pose detection on iOS/Android and wrote code to run pose landmarking on Android
- Manipulated RGBA byte arrays and applied affine transformations to pre- and post-process input image data
- Participated in project planning and technical design discussions and contributed to documentation:
  - Documented performance and functional limitations of implementations for future team reference
  - Visually translated project architecture requirements by diagramming MediaPipe graph network relationships
  - Analysed and charted out MediaPipe's implementations to expedite code port over

**Fujifilm North America** – Co-Op Software Developer I

May – Aug 2021

**JavaScript, C#, HTML5/CSS3, Vue.js, Node.js, ASP.NET, MongoDB/Mongoose, Git, TFS**

- Added Google Photos support to kiosks by porting over legacy webapp, using WebSockets for user authentication
- Circumvented UI delays due to mandatory backend processes via skeleton loading to show indeterminate progress
- Leveraged promise combinators to shorten asynchronous backend image render operation times by roughly 15%
- Created an upsell modal based on a UX mock-up and defined its behaviour using routing and Vuex store logic
- Added backend capability to calculate and store uploaded image sizes and created corresponding API endpoints

**RIT School of Interactive Games and Media** – Teaching Assistant

Jan 2021 – Present

**C#, Unity, MonoGame, Git**

- Support studio classes on casual game development, introductory OOP, and data structures and algorithms
- Mentor student teams, giving actionable feedback on game design, code, and process/project management skills
- Review, grade, and provide constructive comments on game projects and assignments across multiple sections
- Articulate abstract concepts through summarising and explaining lesson material to students
- Clarify students' conceptual doubts and aid debugging in-person and online via class Slack and virtual office hours