Katrina Johanne Lee

Game Developer & Programmer・Licensed Mechanical Engineer

Self-taught independent game developer and programmer with experience in Unity, C# and Git. Has acquired knowledge in finite state machines, behavior trees, pathfinding and object-oriented programming through involvement in RPG, platformers, and arcade games. Has collaborated with fellow developers, artists, and testers worldwide for game jams. Occasionally does art and sound assets.

WORK EXPERIENCE

Research and Development Engineer

Anritsu Corporation (formerly Anritsu Infivis Co., Ltd.)

October 2017 - present   *Kanagawa, Japan*

Achievements/Tasks
- Performed frame design for our high-precision weight inspection machine and did analysis both through FEA simulation and actual experimentation, which improved the weight inspection accuracy by 21%. Did 3D modelling and evaluation via iCAD SX.
- Identified key causes of weight inspection inaccuracies through data analysis and collaboration across departments.
- Built tools with VBA and LabVIEW to expedite data analysis and facilitate proper data handling. Piqued my interest in programming in general.

PERSONAL PROJECTS

Dragon War (Feb 2021 - July 2021; dev on hiatus) [team] [↗]

Joined a worldwide game jam themed Stronger Together with a group from South America and produced a small-scale RPG with a Pokémon-like turn-based combat in-game. Wrote ~95% of the code. Was further developed post-competition.

`Unity3D` `Unity Collaborate` `GitHub` `scriptable objects for inventory system` `turn-based combat system+UI` `serialization for save/load data management system` `events/delegates` `state machines for character movement` `character animation` `addressables` `testing` `RPG`

Dormir (August 2021 - present) [solo] [↗]

Designed and scripted a strategy and time management game set at a fictional siesta café which the player manages. Designed all pixel art, conceptualized art style. Inspired by Diner Dash, it centers around Spain's siesta culture. Refactored code once.

`Unity3D` `GitHub` `Aseprite` `a* pathfinding` `character animation` `events/delegates` `state machines for in-game customer management` `overall concept and game design` `clicker`

Ulit-ulit (August 1, 2020 - August 8, 2020) [solo] [↗]

Joined my first worldwide game jam themed Rewind and completed a mini puzzle game with gameplay almost akin to snake. Conceptualized art style. Did SFX.

`Unity3D` `GitHub` `Unity fundamentals` `BoscaCeoil` `peer reviewing games` `overall concept and game design` `received peer reviews` `puzzle`
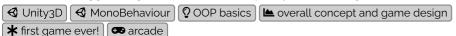
Cog In The System (February 1, 2021 - February 8, 2021) [solo]

Designed and scripted a life simulation game that was patterned after my life and my routine during the height of the COVID-19 pandemic (think The Sims set in the 2020s with a Nokia 3310 UI). Designed all pixel art.

`Unity3D` `GitHub` `Aseprite` `overall concept and game design` `life-sim`

Sidewinder (July 2020) [solo] [for study purposes]

Took a deep-dive and learned about the basics of OOP, MonoBehaviours in Unity, colliders and triggers, logical operators, the input system, among others.

`Unity3D` `MonoBehaviour` `OOP basics` `overall concept and game design` `first game ever!` `arcade`

Bug (November 2021) [team] [for study purposes]

Learned from a seasoned programmer the basics of writing finite state machines from scratch, while growing my knowledge of GitHub.

`Unity3D` `GitHub` `state machines` `2D platformer`

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SKILLS

Technical Competencies

Programming
`C# (1.5yrs)`

Software
`Visual Studio/Studio Code (1.5yrs)` `Android Studio (0.5yrs)` `Microsoft Office (>10yrs)`

Game Development
`Unity3D (1.5yrs)`

Version Control System
`Git (1.5yrs)`

Art and Sound
`Aseprite (1.5yrs)` `Krita (0.5yrs)` `Blender (0.5yrs)` `BoscaCeoil (0.25yrs)`
- Did all the pixel art for Dormir using Aseprite, basing the style off Kenney assets [↗].
- Did all the assets for Cog In The System with an 84x48 base resolution.

Others
`HTML5` `CSS` `JS` `Java` `Python` `C++` `VBA` `LabVIEW` `MATLAB` `iCAD`

Languages

Filipino — Native or bilingual proficiency

English — Full professional proficiency
- TOEIC 985

Nihongo — Professional working proficiency
- JLPT N2 (日本語能力試験N2合格)

EDUCATION

BSc in Mechanical Engineering
University of the Philippnes Diliman
June 2011 - June 2016 | Metro Manila, Philippines
Courses: Numerical Methods, Machine Design, Control Systems, Engineering Math & Physics

INTERESTS

Hiking (日本百名山を目指している！Aiming for Japan's 100 famous mountains!) | Running | Cooking | Baking | Eating (ピザ大好き！Pizza's my favorite!)