

# HYUNGJUN PARK

SOFTWARE ENGINEER | TOOLS PROGRAMMER

APPRENTICE NOVELIST



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## TECHNICAL SKILLS

General Programming  
Object Oriented Programming  
Game Engine Development  
Tools Development  
Shader Programming  
Algorithms

## LANGUAGES

C/C++  
HLSL  
C#

## SOFTWARE SKILLS

Visual Studio  
Unreal Engine 4  
Unity 5 / 2018  
Doxygen

## TOOLS & APIS

Git  
WinAPI  
MFC  
DirectX Sdk 9/11  
DirectInput  
Fbx Sdk 2016  
Slack  
Perforce / Helix

## MATHEMATICS

Linear Algebra & Geometry  
Vector Calculus  
Curves & Surfaces  
Discrete Math  
Probability & Statistics  
Fuzzy Logic

## METHODOLOGIES

Waterfall  
Prototyping  
Agile/Scrum

## ABOUT MYSELF

INTJ  
Bookworm  
Storyteller  
Soldier76/Phara in Overwatch  
Excellent Lux Supporter in LoL

## WORK EXPERIENCES

**Jr.Client Software Engineer, Signalnco** May.2018 - Feb.2019

*Mobile casual Match-3 game (Unity 2018, Team of 18)*

- Responsible for implementing most of the scenes and UIs with UGUI
- Prototyped Quest System
- Implemented Spine based Costume System

**Associative Software Engineer, Avini Group** Sep.2017 - Feb.2018

- Implemented UDP networking API with I/O completion port model
- Built cloud applications which receives the data from other application through API and sends back processed data by AWS

## ACADEMIC PROJECTS

**Lead Tech, Penny Blue Finds A Clue, DigiPen** Sep.2016 - Apr.2017

*Awarded Game Of The Year, Exhibited at PAX West, IndieCade 2017, and IGF Finalist 2018*

*Narrative-Driven 3D First Person Mystery Game (UE4, Team of 11)*

- Built custom Json2DataTable converter pipeline in C++ helping the designer easily produce DataTable assets for data-driven dialogue system and manage stories by Twine 2.0
- Managed settings and control flow of the game levels by implementing most of the widget based game features
- Created light shafting, edge highlighting, and all the particle effects in the game
- Administered the project through GitHub to control workflows which enabled easier asset management, as well as help track down bugs

**Tools & Engine Programmer, Rafflesia, DigiPen** Sep.2015 - Apr.2016

*3D Competitive FPS (Custom Engine, Team of 14)*

- Contributed to building Ursine Engine  
**Ursine Engine**  
*Custom entity-component engine using C++, C#, boost, CEF, DirectX 11, and FBX SDK 2016*
  - Designed and implemented real-time animation editor component with ease in/out, path following, and FSM based blending
  - Implemented fbx importer tool to convert fbx files to a custom binary format which helped reduce size and cost for serialization

**Tools & Graphics Programmer, Wake Up Princess, KOCCA** Mar.2012 - Nov.2012

*Awarded Silver Prize in Korea Independent Game Competition, 2013*

*3D Tower Defense Game (Custom Engine, Team of 7)*

- Architected and implemented custom animation editor tool from the ground up
- Designed game concept, art concept, game logic, levels for both story and endless mode
- Implemented custom library with DirectInput to provide the ability play game with the controller with force feedback

## PERSONAL PROJECTS

**Dx11Framework** Jan.2015 - Present

*Component based renderer using C++, DirectX 11, and FBX SDK 2016*

*Improved version of the tool used in Ursine Engine*

- Supports both Forward and Deferred rendering

**HJTech\_AnimationEditor** Mar.2012 - July.2012

*Custom 3D model parser & animation editor tool using C++, DirectX 9, and MFC*

- Implemented .ase lexer and parser
- Architected and implemented frame based real-time animation editing pipeline
- Implemented ability to attach a variety of collision detection objects to the models
- Created custom binary file exporting pipeline which helped reduce size and cost for serializing

## EDUCATION

**DigiPen Institute of Technology**

- Bachelor of Computer Science in Real Time Interactive Simulation*

- Minor in Mathematics*

US Campus

Sep.2010 - Dec.2010 / Jan.2015 - Apr.2017

Korea Campus(KMU)

Sep.2009 - May.2010

Singapore Campus

Sep.2008 - May.2009

**KOCCA(Korea Creative Content Academy)**

- Creative Game Developer Education Curriculum*

Mar.2011 - Nov.2012