\$\square\$ 010-8761-1707 | \mathred{\mathred{\mathrea}} \frac{\mathreal ingun37@gmail.com}{\mathreal} | \$\frac{\mathreal https://ingun37.github.io/portfolio/}{\mathreal} | \$\bar{\mathreal https://ingun37.github.io/portfolio/}{\mathreal} | \$\bar{\mathreal https://ingun37.github.io/portfolio/}{\mathreal https://ingun37.github.io/portfolio/} | \$\bar{\mathreal https://ingun37.github.

### Introduction

- Timeless: Knowledgeable in from traditional Low-level POP, OOP to innovative Functional Paradigms.
- Tech Mind: Knowledgeable in applications of techniques and mathematics in software development.
- Polymorphic: Capable of developing various kinds of software like Computer Graphics, Full Stack, Game, Application, DevOps, Cloud Platforms.
- Professional: Trustworthy and responsible communicator/coworker.

## **Skills**

	Game/CG	Unity3D, OpenGL, Metal, OpenCV
	FullStack	Angular, React, ThreeJS, gRPC, NodeJS
	DB	Redis, RDBMS, FireStore, DGraph, ORM
	DevOps	Jenkins, Gradle, Kubernetes, Docker
	Application	iOS
	Languages	Haskell, Scala, C, C++, C#, ObjC, Swift, Go, Python, Ruby, Java, Groovy and more
	Cloud Platform	Firebase, GCP
	Functional Paradigm	Flux Architecture, Reactive Programming, Monad, Applicative, Algebraic Data Type, Generic Programming, Declarative Programming, Category Theory

# **Career** Loadcomplete software engineer

2015.5 ~ 2017.9

- Maintenance: Developed new features and bug fixes using Unity3D.
- **GI**: Automated the build pipeline for iOS/Android targets, data sheets and resources using Jenkins, Gradle, Google Cloud API.
- Native: Developed platform-specific native libraries like iOS Force Touch and Android screen recording
- **Graphics Optimization**: Reduced the rendering time by 20% by making depth-mask polygons that imitates alpha-textures and placing them behind 2D objects.

Nvius software engineer 2014.9 ~ 2015.5

- Maintenance: Developed new features and bug fixes using C++, Unreal and Scaleform GFX.
- Major Update: I was responsible for the installation of the new character Paladin.
- **Tool Development:** Developed the new feature that marks an area in the map editor using C#, WPF and ear-clipping algorithm

Swink software engineer 2013.7~2014.9

- Application Development: Developed the official application for EBSFM which is one of the biggest radio channel in South Korea. It supports encrypted audio streaming, network session threading, interactive UI.
- Game Development for a National Contest: Developed 10 kinds of mini games that were used in the 2nd National Online Science Game Contest held by Gwacheon National Science Museum supported by Ministry of Education using Unity3D

Software Maestro student 2010

Developed the digital system for Jeju Wonkwang Elder care center using .NET

### **Education**

Bechelor in Computer Science

2019

Korea Animation High School

2009~2012

## **Personal Projects**

#### **Expressive Matrix Calculator (iOS)**

2020

- Interactive, Responsive, Expressive, Algebraic, Open-Source Calculator. (Available at AppStore)
- · Uses Handwritten integer recognizing TensorFlow Model
- Employed Flux Architecture using ReSwift
- Able to express wide range of algebraic numbers for the <u>implementation of following Abstract Algebraic model</u>.

Monoid\*

Abelian+

Field

Ring

Ring

Matrix

MDFINDER 2018

- · Matching service between salesmen and customers (failed to publish).
- Developed matching server using Go.
- · Used DGraph as Graph Database.
- · Used gRPC as API protocol.
- Developed Authentication / Chatting service / Containerization using Firebase and GCP.
- · Developed iOS client.

## **Open-Source Contributions**

kostub/iosMath 2019

- · iOS display engine for mathematics.
- Pull requested & merged the new feature that is equivalent of colorbox from Latex using Objective-C.

#### awalterschulze/goderive

2019

- · Functional Programming in Go
- Pull requested & merged a new monadic transformation.

# **English**

- ETS Toeic L(485/495) R(465/495) Total(950/990)
- ETS Toefl MyBestScore 102/120
  - Reading (28/30) Advanced
  - Listening (28/30) Advanced
  - Speaking (22/30) High-Intermediate
  - Writing (24/30) Advanced
- OPic Advanced-Low (The highest level)
- Capable of communicating/documenting on development and many other topics.
- Capable of understanding both literal and auditory information on development and many other topics

## **Writings**

- DEV.TO Blog articles on Category Theory, Functional Programming and iOS.
- MathBookAnswers My original answers to questions from mathematics books including:
  - Category Theory for Programmers Bartosz Milewski
  - Neural Networks and Deep Learning Michael Nielsen
  - Topology Without Tears Sidney A. Morris
  - Introduction to Probability, Statistics, and Random Processes Hossein Pishro-Nik