

# Chris Ohk

GAME PROGRAMMER · ENGINE ENGINEER · DEVELOPER · LECTURER

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## Work Experience

### Tech Lead

EJN CORPORATE

Seoul, South Korea

Dec 2023 - Jun 2024

- Manage development teams by meeting 1 on 1 regularly and discussing technical decisions and determining direction
- Develop new project (Unannounced)

### Engine Engineer

MOMENTI KOREA

Seoul, South Korea

Aug 2021 - Nov 2023

- Develop cross-platform engine for making and playing interactive media using Rust
- Create and deploy Swift APIs for use in iOS apps
- Create and deploy Elixir APIs for use in backend
- Transfile and deploy WebAssembly for use in web browsers

### Game Programmer

NEXON KOREA

Seongnam-si, South Korea

Sep 2015 - Jul 2021

- Update build system by upgrading IDE version (Visual Studio 2008 → Visual Studio 2015)
- Develop physics engine for 64-bit application build (Havok Physics → NVIDIA PhysX)
- Develop many contents such as 'Depart for Battle', 'Quick Departure', 'Pet Book', 'Partholon Vanguard' and 'Friendship System'
- Develop raid 'Macha' and character 'Tessa'
- Improve facial system by facing-related elements to automatically change based on scale value
- Maintain and manage Korea live server

## Projects

### RosettaStone

DEVELOPER

🐙 utilForever/RosettaStone

May 2017 - Present

- Implemented Hearthstone simulator for reinforcement learning using C++17
- Wrote extensive unit test to check each card's effect

### CubbyFlow

DEVELOPER

🐙 CubbyFlow/CubbyFlow

Apr 2018 - Present

- Voxel-based fluid simulation engine for computer games using C++17
- Wrote detailed documentation and tests/benchmarks for the library and published it on GitHub

### baba-is-auto

DEVELOPER

🐙 utilForever/baba-is-auto

Apr 2018 - Present

- Implemented Baba Is You simulator for reinforcement learning using C++17
- Worked Python API support for convenience use and benchmarked by using DQN

### rxRust

CONTRIBUTOR

🐙 rxRust/rxRust

Sep 2021 - Nov 2022

- Rust implementation of Reactive Extensions
- Implemented WebAssembly support
- Implemented several core features such as 'BehaviorSubject', 'WithLatestFrom' and 'StartsWith'

## Skills

**Languages** C++, Rust, C#, Python

**Spoken Languages** Korean, English, Japanese

**Programs** Visual Studio, Visual Studio Code, RustRover, GitKraken, Word

## Education

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### KAIST

M.S. IN COMPUTER SCIENCE

Daejeon, South Korea

Mar 2013 - Aug 2015

### Kyungpook National University

B.S. IN COMPUTER SCIENCE AND ENGINEERING

Daegu, South Korea

Mar 2008 - Feb 2013

## Honors and Awards

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### Microsoft MVP (Most Valuable Professionals)

CATEGORY: DEVELOPER TECHNOLOGIES

Microsoft

2015 - Present

### ACM-ICPC 2012 Daejeon Regional

HONORABLE MENTION

Ministry of Future Creation and Science, NIA

2012

### 1st TOPCIT Competition

SPECIAL PRIZE

Korea Ministry of Science and ICT, NIPA

2012

## Translations

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### Optimized C++

C++ 최적화

Hanbit Media

Jul 2019

### Discovering Modern C++

모던 C++ 입문

Gilbut

Dec 2017

### Rust Essentials

러스트 핵심 노트

Hanbit Media

Feb 2017

### Programming 2D Games

2D 게임 프로그래밍

Acorn Publishing

Nov 2014

### Unity Shaders and Effects Cookbook

유니티 SHADER와 EFFECT 제작

Acorn Publishing

Apr 2014

### GameSalad Beginner's Guide

게임샐러드로 코드 한 줄 없이 게임 만들기

Acorn Publishing

Jul 2013

## Communities and Studies

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### C++ Korea

FOUNDER AND ADMINISTRATOR

Voluntary Association

Nov 2013 - Present

- A Facebook community that uses C++ language and shares related information
- Translate "C++ Core Guidelines" to Korean
- Host seminars, meetups and studies periodically
- 6000+@ members

### Reinforcement Learning KR

ADMINISTRATOR

Facebook Community

Jan 2021 - Present

- A Facebook community that researches reinforcement learning and shares related information
- Host meetups and studies periodically
- 6000+@ members

### Reinforcement Learning Paper Study

ADMINISTRATOR

Online

May 2020 - Apr 2023

- Review a variety of papers, from DQN to state-of-the-art papers introduced in the latest conferences
- Present and discuss 2 papers per week
- 100+@ papers
- 100+@ members

## Teaching

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### Rust Basic + Linux Kernel Development

HSPACE

Seoul, South Korea

Jul 2024 - Present

### Rust Basic + Cross-platform Application Development

SEOUL NATIONAL UNIVERSITY - SCSC + WAFFLESTUDIO

Seoul, South Korea

Mar 2024 - Present

### Rust Basic + Rogue-like Game Development

KONKUK UNIVERSITY - GDSC KONKUK + EDGE

Seoul, South Korea

Mar 2024 - Present

### Rust Basic + Make a Blog

KOREA UNIVERSITY - MATKOR

Seoul, South Korea

Mar 2024 - Present

### Rust Basic + Make a Minecraft

UNIST - HEXA

Ulsan, South Korea

Jan 2023 - Present

### Rustonomicon at a Glance

KOREA UNIVERSITY - MATKOR

Seoul, South Korea

Dec 2023 - Feb 2024

### Rust Basic + Backend Development

KOREA UNIVERSITY - GDSC KU

Seoul, South Korea

Sep 2022 - Sep 2023

### Rust Basic + Make an Interpreter

KOREA UNIVERSITY - MATKOR

Seoul, South Korea

Mar 2023 - Aug 2023

### Rainbow Is All You Need

DAEGU SOFTWARE MEISTER HIGH SCHOOL

Daegu, South Korea

Oct 2021

### Reinforcement Learning Basic

UNIST - HEXA

Ulsan, South Korea

Jul 2021 - Sep 2021

### Artificial Intelligence Go with AlphaGo and AlphaGo Zero

KAIST - INCLUDE

Daejeon, South Korea

Mar 2021 - Jul 2021

### Artificial Intelligence Go with AlphaGo Zero

2020 WINTER OSS DEVELOPER FORUM CAMP

Seoul, South Korea

Jan 2020

### Reinforcement Learning Basic

2019 SUMMER OSS DEVELOPER FORUM CAMP

Seoul, South Korea

Jul 2019

## Presentation

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### C++ Korea Meetup

A QUICK LOOK OF C++ CONCURRENCY

Seoul, South Korea

Jun 2024

### 2024 Softeer Tech Meetup

WHY IS RUST ON THE RISE + INTRODUCTION TO RUST'S KEY FEATURES

Seoul, South Korea

Jun 2024

### 4th DevTalk Seminar - Hongik University, Computer Engineering

LEAP FROM COLLEGE STUDENT TO DEVELOPER

Seoul, South Korea

Mar 2024

### Cloud Native Sustainability Week in Seoul

CAN RUST SAVE THE EARTH?

Seoul, South Korea

Oct 2023

### C++ Korea Meetup

GAME DEVELOPMENT WITHOUT USING CLASS

Seoul, South Korea

Jun 2023

### C++ Korea Meetup

DIRECTION OF C++ EDUCATION FOR BEGINNERS

Seoul, South Korea

Feb 2023

### ModuLabs MODUPOP

DEVELOPERS' REINFORCEMENT LEARNING

Seoul, South Korea

Dec 2022

<b>INFCON 2022</b> RUST CROSS-PLATFORM PROGRAMMING	Seoul, South Korea Aug 2022
<b>Korea University, Dept of CSE - Special Lecture</b> THINGS I WISH I'D KNOWN IN COLLEGE	Seoul, South Korea Jun 2022
<b>44BITS Potcast Live</b> 5 YEARS OF HEARTHSTONE DEVELOPMENT	Online Mar 2022
<b>Taling Monthly Code Reivew Ver 0.1</b> GROWING AN OPEN SOURCE PROJECT	Online Oct 2021
<b>72th AiFrenz Seminar</b> REINFORCEMENT LEARNING ENVIRONMENT DEVELOPMENT	Online May 2021
<b>Jeonbuk Science High School - Special Lecture</b> CREATE AN ARTIFICIAL NEURAL NETWORK USING PYTHON	Online May 2021
<b>2020 OSS Festival</b> MANAGING AN OPEN SOURCE PROJECT (COMMUNITY) WELL	Online Nov 2020
<b>GitHub in DevOps Meetup 2020</b> THE JOURNEY FROM OPEN SOURCE TO INNER SOURCE	Online Nov 2020
<b>7th C++ Korea Seminar</b> GAME DEVELOPMENT WITHOUT USING POINTER	Online Jul 2020
<b>6th C++ Korea Seminar</b> C++ OPEN SOURCE 101	Seoul, South Korea Sep 2019
<b>GDG Campus Seoul - Toy Story</b> TRIAL AND ERROR FOR A SUSTAINABLE SIDE PROJECT	Seongnam-si, South Korea Jul 2019
<b>Nexon Developer Conference 2019</b> EXPERIENCE IN DEVELOPING HEARTHSTONE REINFORCEMENT LEARNING ENVIRONMENT	Seongnam-si, South Korea Apr 2019
<b>5th C++ Korea Seminar</b> C++20 KEY FEATURES SUMMARY	Seoul, South Korea Apr 2019
<b>Meltingcon 2018</b> CREATE PYTHON API USING C++	Seoul, South Korea May 2018
<b>Nexon Developer Conference 2018</b> EXPERIENCE IN DEVELOPING FLUID SIMULATION ENGINE	Seongnam-si, South Korea Apr 2018
<b>16th Hacking Camp</b> C++ SECURE CODING GUIDE	Seoul, South Korea Aug 2017
<b>3rd C++ Korea Seminar</b> NEW C++ IN A NEW VISUAL STUDIO, A MIGRATION STORY	Seoul, South Korea Feb 2017
<b>2nd C++ Korea Seminar</b> C++17 KEY FEATURES SUMMARY	Seoul, South Korea May 2016
<b>Microsoft Techdays Korea 2015</b> GREASE RUSTY OLD C++ CODE WITH MODERN C++	Seoul, South Korea Oct 2015
<b>1st C++ Korea Seminar</b> C++11 KEY FEATURES SUMMARY	Seongnam-si, South Korea Dec 2014