

JUNHA YANG

CONTACT

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INTRODUCTION

I am a software developer with experience in leading a software project. I believe a sound system can be built even with restricted business resources if well-structured abstraction and principled design are followed.

EDUCATION

2016-current Pohang University of Science and Technology (POSTECH)
Bachelor of Computer Science and Engineering (GPA: 4.05/4.3)

INTERESTS

System Programming

concurrency · asynchrony · networks · WASM

Blockchain

consensus · inter-blockchain communication · light client · scalability

Cryptocurrency and Decentralization

DApp · DeFi · NFT · Web3

Computer Graphics

realtime rendering · global illumination · OpenGL

SKILLS

Languages

Rust, Modern C++, Python

Frameworks and Protocols

Tokio, OpenGL, Cosmos SDK, Amazon Web Services

WORK EXPERIENCES

2021-2022 **Hyperithm** Infrastructure Team Head · Full-time

Hyperithm is a cryptocurrency trading firm. I contributed in building a trading infrastructure.

- Managed the entire infrastructure of the firm, including AWS and firm's various realtime products.
- Established a new trading system which provides fast, abstracted and asynchronous data access to various crypto exchanges.
- Launched a new strategy operation platform which provides a trading strategy runtime and an instance management system.

2019-2021 **Kodebox** Core Engineer · Full-time

Kodebox develops and maintains the CodeChain Foundry project, which is an open-source layer-1 blockchain solution based on Tendermint and Rust. I contributed in the overall development of the project.

- Developed a blockchain framework, [Codechain Foundry](#).
- Implemented Inter-Blockchain Communication (IBC) protocol modules for Codechain Foundry, as explained in the [article](#).
- Pioneered a Rust remote method invocation library called [remote-trait-object](#).

2018

Netmarble

AI Researcher · Intern

Netmarble is a mobile game development and publishing company. I interned under their AI research center.

- Developed a system to detect abusers in MMORPG games, employing PyTorch and massive game logs to build and train an RNN.

PROJECTS

2022-current

PDAO

Founder · [Link](#)

Founded a university-oriented DAO (Decentralized Autonomous Organization) established as a foundation, with the purposes of education, research, and alumni networking.

- Operates a open community for students and alumni.
- Provides seminars on various topics related to blockchain.
- Working on DAO structure, tokenomics, and contract development for the official launch scheduled for the second half of 2022.

2019-current

fere

Main developer · [Link](#)

A realtime 3D rendering engine built on top of OpenGL, in Rust.

- Consists of a high-level abstracted layer defining a set of operations, and an engine that takes a stream of operations and renders it.
- Supports essential lighting and shading functionalities such as PBR, shadow, and etc.
- Implements irradiance volume as a global illumination method.
- Can record the framebuffer and encode to a video using ffmpeg.

2021

serde-tc

Main developer · [Link](#)

A Rust library for trait method dispatch based on proc-macro.

- Inspired by remote-trait-object in the next section.
- Provides a proc-macro which generates a dispatcher and stub implementation from a trait definition.
- Provides a simple implementation of remote method invocation based on HTTP.
- Supports asynchronous methods.

2020-2021

remote-trait-object

Main developer · [Link](#)

A Rust library for remote method invocation based on trait objects. You can find [an article](#) about this project in the postings section.

- Abstracts services and proxy objects over traits.
- Provides a proc-macro which generates a dispatcher and stub implementation from a trait definition.
- Designed to easily export and import services.
- Based on well-abstracted and independent transport model.

2019-2021

CodeChain FoundryCore developer · [Link](#)

A blockchain engine based on Tendermint and Rust, inspired by Cosmos SDK. You can find [an article](#) about this project in the postings section.

- Provides all the essential blockchain functionalities such as consensus, transaction, state DB, mempool, p2p-networking, and more.
- Based on a composable module system which provides sandboxing and principled inter-module communication.
- Supports IBC and light client.
- Supports GraphQL.

2019-2020

junhaslMain developer · [Link](#)

A C++ library for serialization and deserialization which highly exploits template meta programming.

- Supports various primitive and composite types.
- Supports custom classes.

POSTINGS & TALKS

	<i>PDAAO Seminar: An Introduction to Blockchains - 2</i>	Link
2022	<i>PDAAO Seminar: An Introduction to Blockchains - 1</i>	Link
2020	<i>CodeChain Foundry</i>	Link
	<i>remote-trait-object: One of CodeChain Foundry's core inter-module communication systems</i>	Link
	<i>CodeChain Foundry ICS Implementation</i>	Link
	<i>Blockchain Light Client</i>	Link
	<i>IBC and ICS</i>	Link

OTHER INFORMATION*Experiences*

2020 · Contributor to the specification of the Cosmos IBC protocol
Pull requests [#392](#), [#386](#), [#384](#), [#360](#)

2017 · President of Hanulim, an orchestra club in POSTECH

2015 · National team for the International Science and Engineering Fair (ISEF)

Awards

2014 · Korean Olympiad in Informatics (KOI), Gold Award (2nd)

Languages

KOREAN · Native

ENGLISH · Fluent

Personal Interests

Classical Music · Jazz · Rock · Pop · Movie

May 23, 2022