

Punghee Cho

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Education

University of Texas at Dallas

MS in Computer Science

Richardson, TX

Aug.2019 – May.2022

Dankook University

BS in Electrical Engineering

Seoul, South Korea

Mar.2011 – Feb.2018

Skills Summary

- **Languages** : React, Typescript, C#, Java, Javascript, PowerShell, AngularJS, NodeJS, SQL, NoSQL, Python, Spark(PySpark), Go
- **Technologies** : Spring Framework, .NET Core, AWS, Linux, Docker, Big data, Blockchain, EDI, Databricks, Kafka, Elastic search, Kibana

Experience

IHRC Inc | Software Developer | Remote

Apr 2023 – Present

- **Contract for the Centers for Disease Control and Prevention (CDC)**
- **Modernization of the PulseNet project of CDC** | React, Typescript, C#, Azure, MongoDB
Reduced dendrogram load time by 95%, from 3 minutes to 10 seconds for 2000+ entries by optimizing recursive algorithms and visualization logic.
Addressed limitations in an existing library by locally modifying files to enhance functionality.
Enhanced backend services and APIs to improve data search capabilities.
Conducted comprehensive unit tests using Jest and performed backend API testing.

ATNS GROUP | Software Developer | Atlanta, GA

Jul 2022 – Feb 2023

- **EDI - AS2 Server Application** | Java, PowerShell, Docker, Mysql, H2, AS2
Led a microservice development and deployment for managing MDN messages on an AS2 server.
Developed inbound and outbound maps on confidential formats X12, EDIFACT.
Supported partners (Tesla, Volvo, Volkswagen, Hyundai) in installing certificates and keys to set up AS2.

Maevn Corporation | Software Engineer Intern | Dallas, TX

Jan 2021 – May 2021

- **Integration between ERP and B2B systems** | Back-End | C#, NodeJS, MSSQL, .NET Core
Developed REST APIs and rearchitected an ERP system based on the APIs to integrate with B2B systems.
- **Leading a system migration from an on-prem to AWS** | AWS
Developed a scalable serverless system using S3 and Lambda.
Designed a network architecture using VPC, Subnets, Route table, and a Load Balancer.
Designed a failover, auto-healing, and auto-scaling functionalities.

CONCOKOREA | Software Developer | Seoul, South Korea

Apr 2018 – Jun 2019

- **CryptoCurrency Exchange Renewal** | Full Stack | Java, Spring Framework, AngularJS, Mysql
Exchanged the code with AngularJS to create the exchange web page as a Single Page Application.
- **ICO - Initial Coin Offering** | Back-End | Public Blockchain, PowerShell Script, Linux
Created the exchange's own cryptocurrency category and mined and distributed it to investors.
- **CryptoCurrency's Hardfork Tool** | Full Stack | Java, AngularJS, Shell Script, Mysql, Public Blockchain, Developed an API to display the amount of new cryptocurrencies created by hard forks.

Projects

Shopping application with the BigData based recommender system

Jul 2021 – Dec 2021

- Computed weights for features and got recommended item list for each product.
- Improved cosine similarity formula for the collaborative filtering algorithm.
- Skills : Spark, MongoDB, ReactJS, React-Native, NodeJS, ExpressJS, Heroku

Creating Own Cryptocurrency, Blockchain Explorer, Wallet, Mining

Jan 2019 – Jun 2019

- Made a new coin in a new form that was a hard fork of Bitcoin through the test and main networks.
- Linked a main coin server and a blockchain explorer's database server for showing the information of each blockchain to the users.
- Set up auto mining systems to the main coin server for sharing and validating transactions of newly updated blockchain because WESCOIN is the **Proof-of-Work** based cryptocurrency.
- Skills : Linux(Ubuntu), BlockChain, Python, C++, Mysql

Volunteer

8BillionMinds | Software Developer | Java | UK - Remote

Mar 2023 – Aug 2023

- Developed educational platforms using Java, enhancing learning tools for a global learning community.

Award

Silver Prize (Rank #2) out of 167 teams of competitors at Capstone Design Exhibition 2015

- Sponsored by Dankook University
- Developed a software and hardware for a pedestrian notification system and a cane for the visually impaired with Bluetooth and RFID to replace commercialized sound signal device.