Dongsam Byun [변동삼]

Blockchain Engineer

Cosmos-SDK / Tendermint / Ethereum / Go

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Experience

2021–	**Tendermint**
	-Tendermint has acquired B-Harvest ⚭
	-Developing Gravity-DEX, Liquidity Module on Cosmos Hub

Cosmos-SDK	Tendermint	Golang

2018–	**B-Harvest**, CTO
	-Developing tendermint Liquidity Module of the Cosmos-SDK, which serves AMM(Automated Market Makers) on Cosmos Hub (Gravity-DEX)
	-Contributing Cosmos-SDK, Tendermint open-source and Customizing for analysis, validation
	-Development and Consulting, Auditing of Blockchains Based on Cosmos-SDK and Tendermint (Kava, Terra, etc.)
	-Building, managing, and optimizing for Cosmos validator(DPoS) node system, Reliability Engineering
	-Cosmos, Terra, IRIS, Kava, Chainlink, Secret Network, Band Protocol, etc Validator (moniker: B-Harvest)
	-Ranked Top Tier in Cosmos Game of Stakes (moniker: bharvest)
	-Reporting critical security vulnerability (Gaia, Cosmos-SDK, Cosmos-Hub)
	-Designing Tokenized Fund using Smart Contracts

Cosmos-SDK	Ethereum	AWS(EC2, VPC, DX)
Tendermint	Solidity	Golang

2018	**The Language Network**(Atlas Labs), Lead Blockchain Engineer
	-Developed Smart Contract, Dapp for publishing ERC20 Token and ICO
	-Implemented Blockchain Backend Server using Geth and web3.py
	-Built Ethereum Blockchain Network as a sidechain and Ledger

Ethereum	Web3.py	IPFS
Geth	Solidity	Oraclize

2017–	**Self-employed**, Freelancer Blockchain Engineer, Advisor, Lecturer, Author
	-Advice for ICO and Blockchain Projects
	-Blockchain Advisory Board Member, IIB Council ⚭
	-Advisory Board Member for Blockchain Tech [sidechain, smart contract], Storichain ⚭
	-Lecture on Ethereum and Solidity Programming Course, Fast campus ⚭
	-Auditing Smart Contracts (Solidity)

2016–17	**WantedLab**, Machine Learning, Software Engineer (Matching Cell)
	원티드 (wanted.co.kr) Data Analysis, Machine Learning, Backend, REST API Development
	-Implemented morphological analysis and extract keyword of Resume, Job Description text (NLP, TF-IDF, Word2vec)
	-Developed matching model and scoring system for between user and job (Collaborative Filtering)
	-Optimized feature for matching model using DNN, Tensorflow
	-Developed auto Crawling system for company news with noise filtering

Flask	gensim	Celery
AWS	TensorFlow	SQLAlchemy
Redis	scikit-learn	Elasticsearch

2016	**Cheoum**, Lead Developer

CUfund Backend, Full Stack of P2P, P2B Crowd Funding Platform
-Developed whole web service of P2P Loan Platform
-Implemented Credit rating inquiry, identity verification, virtual account integration system
-Built infrastructure and DevOps using AWS

Django	AWS	PostgreSQL

2015–16 **DAYLI Financial Group(Nomad Connection)**, Researcher(DataLabs)
-Developed Log Collecting and analysis system for web page
-Did research and analyze news text for stock investment (Word2Vec, Doc2Vec)

Flask	Spark	Gensim
AWS	Zeppelin	MongoDB

2014–15 **Self-employed**, Freelancer
Web, Data Crawler Development

Facebook Page posts, comments	Instagram Posts, tags	Naver Finance ⍉
Amazone products, reviews	Google Image	Election candidate data
	Naver News	ETC Apps, Shops ...

Automation
-Browser Automation for SEO [Python, Selenium]
-Business Automation for law firm [Python, Flask]
-Instagram Image Upload Automation [Python]
-Facebook Page Posting Automation [Python, GraphAPI]

Education

2015–18 **Korea University**, M.S. in Computer Science and Engineering

Text mining for bigdata	Advanced information retrieval	Research in system security
Bigdata planning and analysis	Social network security	Venture capital investments

2011–15 **Dongguk University**, B.S. in Computer Science and Engineering
Pizza Sales Prediction by Using Big Data Analysis / KIPS 2014 Fall Conference VOL 21 NO. 02 PP. 0890 ~ 0893 (2014. 11)
AI Lab (RA, TA)

Contributions ⍉

cosmos/cosmos-sdk ⍉	ethereum/solidity ⍉	LanguageNetwork ⍉
tendermint/tendermint ⍉	ethereum/web3.py ⍉	solidity-korea ⍉
tendermint/liquidity ⍉	tensorflow/tensorflow ⍉	OpenMined ⍉
ethereum/pyethereum ⍉	bitcoin/bitcoin ⍉	omisego/plasma-mvp ⍉

Projects

2020 **Liquidity: Tendermint AMM Liquidity Module of Cosmos-SDK** ⌘ ⍉
2019 **Four-Pillars-Project: better validator operation of Tendermint/Cosmos-SDK** ⍉
2017 **Coin-Trends: CryptoCurrency Analysis Using Text Mining and Machine Learning** ⍉
Quantitative Analysis, Text Mining, Open-Source Analysis, Machine Learning Approach ⌘
Sentiment Analysis about Chatting data using doc2vec ⍉
2015 **Logdig: Web/App Big Log Analysis Framework** ⍉
A framework that allows users to generate, collect, analyze, and visualize click, move, and exit logs generated by Web / App services
Flask RESTful Server, Spark, Zepplien Dashboard
2014 **Sales forecast system through big data analysis** ▶ ⌘
Forecasts future sales volume by analyzing 10-year sales data on POS, online, and phone order share in the foodservice industry and external variables such as weather, news, weblog, and

marketing information

Data ETL using Python, Pandas, and Machine Learning with Weka, Jython

2013 **System Trading by New Opinion Mining** ▶ %

Signal generation through real-time news crawling and positive, negative opinion mining

Project Manager, Python, XingAPI(Etrade)

2012 **Secure payment system based on QRcode scan** ▶ %

Make payment by QRcode scan with sales information, By encrypting the user authentication and credit information required for payment and storing it on a personal smartphone rather than on a server

Project Manager, Payment, Verification Server QRcode Manage Server, POS, Web/App Client

Activities

2021   Reporting critical security vulnerability (Gaia, Cosmos-SDK, Cosmos-Hub) %

2020   Cosmos Community Contributor Grants %

2019   Cosmos Berlin Hackatom 2019, Honorable Mention, dDex: decentralized Delegation Exchange %

2018   Technical Mentoring, Judging for Blockathon (Blockchain Hackathon), Fastcampus %

2015   Korea University CCS Lab(Computer & Communication Security Laboratory) Full-Time

2014–16   public-private joint investigation team for cybersecurity, [Korea Ministry of Science and ICT]

2014   Dongguk University AI Lab TA, RA

2013–14   **Software Maestro** 4th Step 2, Top 50 [Korea Ministry of Science and ICT, NIPA]

2012–13   **BEST OF THE BEST** 1st Step3, Top 20 finalists, Cyber Security Elite Training program [Korea Ministry of Science and ICT, Kitri]

2011–12   Microsoft Student Partner 5th [Microsoft Korea]

Presentations

2019   Database, Statistics, and Data Mining in dPoS Blockchain, Cosmos Seoul Hackatom 2019 %

2018   Trends and View about Blockchain Development, Web World Contents Service Conference 2018 %

2017   Consensus Algorithm of Ethereum and Mining Flow, Korea Ethereum Research Group, Google Campus Seoul%

2017   Ethereum A to Z, BlockChain Business Research Group %

2017   Machine Learning Engineer Meetup, WANTED x wework %

2015   Whitebox Testing, 2015 monsterz seminar, Hanyang Univ. %

2014   Sales Prediction System by Using Big Data Analysis, Hanium expo 2014, COEX ▶

2014   Drone-based tour and control systems with Cisco CMX technology, CISCO IoE Codefest, Song-do ▶

2013   Secure payment system based on QR code scan, COEX ▶

Training

2014   Training and exploration at Silicon Valley, Google, MS, Stanford, HP, etc.

2013–14   Software Maestro summer, winter education, and training

2012   Cyber Security Elite Training program BoB education and training %

Prizes

2014   Computer Engineering General Design Project, Grand Prize [Dongguk Univ.]

2013   Software engineering project, Grand Prize [Dongguk Univ.]

2013   2nd TOPCIT competition, Special prize [Korea Ministry of Science and ICT, NIPA]

2013   APT attack simulation competition for enterprise security experts, 3rd place [Symantec]

2011   Technical report writing and presentation contest, Grand Prize[1st] [Dongguk Univ.]

2010   Open source software introduction essay contest, 2nd place [redhat Korea]

Publications, Patents

2021   Proposal for Cosmos based Automated Market Maker, Liquidity Module

2014   Pizza Sales Prediction by Using Big Data Analysis / KIPS 2014 Fall Conference VOL 21 NO. 02 PP. 0890 ~ 0893 (2014. 11)

2014	AUTOMATIC SALES FORECASTING SYSTEM BASED ON DATA CRAWLING AND MANAGER'S INPUT (Publication, 1020140157122)
2013	SYSTEM AND A METHOD FOR TRADING STOCKS AUTOMATICALLY BASED ON OPINION MINING (Publication, 1020130142019)
2013	THE SECURITY ONLINE PAYMENT SYSTEM AND THOSE METHODS BASED ON TWO DIMENSIONS CODE SCANNING WITH A DEVICE CONTAINING ENCRYPTED PAYMENT AUTHENTICATION INFORMATION (Publication, 1020130001343)
2012	SECURITY PAYMENT SYSTEM BASED ON A CODE SCAN THROUGH A TERMINAL STORING ENCODED AUTHENTICATION INFORMATION AND A METHOD THEREOF FOR SAFELY PERFORMING AUTHENTICATION AND PAYMENT (Publication, 1020120062929)

Certifications

2014	Engineer Information Processing (Human Resources Development Service Of Korea)
2010	LPIC (LPI)
2010	CCNA (CISCO)
2009	Certificate of Hacking Security Expert (National Association of Hacking & Security)

Links

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 Github

in Linkedin

 CV