

Cyrus Jia

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Education

University of Southern California - Viterbi School of Engineering

Los Angeles, CA

Bachelor of Science in Computer Science

Dec 2016

Bachelor of Science in Electrical Engineering

May 2016

Professional Experience

IBM Bay Area Laboratory

Silicon Valley, CA

Watson Software Engineer

April 2017-Present

- Created Node chatbots using Watson Conversation
- Integrated a partner company's product into Watson Workspace, and designed a PoC for the integration, using Node and C
- Wrote video meeting to speech to text transcription PoC

IBM T.J. Watson Research Center

Yorktown Heights, NY

Software Engineering and Research Intern

May 2016-July 2016

- Wrote python scripts to transform and analyze geographical and census datasets and implemented a geo-hash algorithm
- Set up an Elasticsearch database, wrote python geo-poly query functions for Elastic
- Wrote a polygon 2D integration library in python used to develop marketing insights.

Intelligent Systems Technology, Inc.

Los Angeles, CA

Software Engineering Consultant

March 2016-May 2016

- Implemented and designed ES-MDM (Engineering Systems – Multi Domain Matrix) algorithms/analyses
- Designed Triangularization and Sequencing algorithm, Cycle detection, Strongly Connected Component finder, distance between nodes, propagation tree, reachability algorithm, and change propagation algorithm

Project Experience

Arbitrage Trade Bot - Fintech(Python)

Winter 2017

- Used triangular arbitrage to detect trading opportunities on Binance, a top cryptocurrency exchange
- Bid/Ask Orderbook analysis to find threeway currency price discrepancies and output maximum trade profit

Deep Reinforcement Learning for Cadaveric Hands(Python)

Fall 2016

- Fitted cadaveric hand muscle tension data into a machine learning neural network written in TensorFlow to predict force output
- Contributed to RandOpt (Python Library), which provides sampling for optimal hyper-parameters in Neural Network

Blabble(Obj-C/iOS)

Spring 2016

- iOS anonymous chatroom app based on Firebase backend
- Designed on MVC architecture and utilizes CoreLocation to display chatrooms around user location

ChessPong (Java)

Fall 2015

- Integrated a modified version of networked pong using multithreading code as well as other game options, all running simultaneously to Chess and collaborated via Bitbucket

Twitter Engine (C++)

Summer 2015

- 5,000 lines of code, QT-based Twitter program with login functionality, following/followers list, tweets, and mentions
- Features: Hash function for password database, merge sort for sorting tweets, Tarjan's algorithm for finding strongly connected nodes (users), heap tree for tweet popularity sorting, and database search

Misc

CS@Princeton: *Bitcoin and Cryptocurrency Technologies (Ongoing)*

CS@USC: *Discrete Methods in Computer Science, Data Structures and OO Design, Algorithms/Theory of Computing, Computer Networks, Software Design, Mobile Application Development, Artificial Intelligence, Software Engineering, Operating Systems*

EE@USC: *Wireless Communication Technology, Electro-Magnetics, Electronic Circuits, Linear Circuits, Communication Systems*

Math@USC: *Probability for Engineers, Discrete Math, Calc I-III, Differential Equations, Partial Differential Equations*

Languages: Java, C++, Obj-C, C, Python, Node, SQL/Cassandra, Matlab, HTML/PHP

Tools: Eclipse, Xcode, Linux, Git, Bitbucket, SourceTree, GCC/G++, Elasticsearch, GDB, REST API, Autodesk Maya

Interests: Stock/Option trading, Cryptocurrencies (Blockchain/DAG)