Jincheng Zhang

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Education

Computer Science B.S. Columbia University in the City of New York GPA 3.4/4.3 May 2019

Computer Science B.S. Brandeis University GPA 3.5/4.0 May 2019

Linear Algebra, Multi-variable calculus, Probability & Statistics, Discrete Math

Spoken Dialog Design, Web Development & Incubator, Software Engineering, Operating System, Database

Data Structures, Analysis of Algorithms, Artificial Intelligence, Machine learning, Deep Learning, Quantum Computing

Programming Skills Stack

Programming Languages: C/C++ for algorithms, Java, Ruby, Python, Javascript, HTML5/CSS3 Have Experiences: C#, Emacs Lisp, Scheme

Technology stack: React.js, Meteor.js, Ruby on Rails, Node.js, Django Have Experiences: Angular, iOS, Bash, Git, Unix, Apache, Nginx, Docker

Work Experience

Software Engineer Intern *at* ***Activision Blizzard, Inc.*** May 2018 – August 2018

- Worked on the matchmaking and data analytics/monitoring website for the best-selling game *Call of Duty* franchise
- Building a live ops system (React.js and Django) alongside that ships new game events updates and hot-fixes to the game engine (C++/Lua)

Teaching Assistant *for Machine Learning edX MOOC at Columbia University, Team of 3* Spring 2018

- Answer students' questions on quizzes/assignments/projects on the online course forum powered by edX
- Grade students' projects and help debugging grading scripts on Vocareum backend

Projects

Colorization with Attention *Team of 3. With professor Iddo Drori.* Spring 2018

- Proposed a new transferring learning that extracts attention heatmap from a VGG-19 for 1000 ImageNet classification to improve the result of colorization, code implementation in Tensorflow and OpenCV, and wrote an academic report
- https://github.com/w4995-dl-colorization/Colorization-with-Attention

Examination of Quantum Pseudo-telepathy games and Implementation in Qiskit Spring 2018

- Implemented a quantum circuit of Mermin-GHZ game (3-state quantum entanglement) and tested fidelity on IBM's Q Experience (5 Qubit)
- https://github.com/zhjch05/E6998QC

Handwritten Math Expressions Recognition *Team leader of 3. With Professor Pengyu Hong.* Spring 2017

- Created a preprocessor, a segmentation & classifier to recognize basic handwritten math expressions with Convolutional Neural Network in Tensorflow Keras, and OpenCV (Python).
- https://github.com/Brandeis-cosi101a-hwe/HME_recognition

Duewiz *Homework Reminder. Team leader of 4.* Spring 2016

- Created a system that uses web scraping to get homework information from school's education website
- Designed an asynchronous system to process the information with Ruby on Rails 5 alpha features (ActiveJob, ActionCable etc.)
- https://github.com/DueWiz/Student_Organizer

Voice Control Chess *A voice-enabled chess game. Team leader of 3.* Summer 2015

- Designed a rule based NLP and Dialog System to move chess by voice
- Created a PVP match feature with meteor's built-in socket based push data service
- Designed a materialized frontend with full text/voice inputs, chessboard and records tracking system
- https://github.com/zhjch05/Voice-Control-Chess-Dev/tree/Jincheng-nlp

Other Projects on Github/zhjch05 including *code2html* plugin for Atom editor (500 public downloads), *CarSim* simulator for cars at toll, and more…

Extracurricular

- Microsoft summer camp high school participant 2013
- Volunteer leader of tour guides of a former residence in Qing Dynasty. 2012-2014

Awards

- Second Class in National Olympiad in Informatics in Provinces C++, Algorithms Competition 2013
- Youths Developers Seminar Hackathon first place iOS, Objective-C, HTTP RESTful with AFNetworking 2014
- First place in Computer Science Research & Study in RDFZ/Beijing 2013
  - Wrote a thesis on two-way conversion of code and its flowcharts by parsing C++ and GUI/Algorithm in C#
  - https://github.com/zhjch05/VisualBlocks