

Jincheng Zhang

70 Morningside Dr, New York, New York, 10027

(781)530-6034 • jincheng.zhang@columbia.edu • jc Zhang.com • github.com/zhjch05

Education

Computer Science B.S. Columbia University in the City of New York

May 2019

Computer Science B.S. Brandeis University

(Dual Degree) May 2019

Linear Algebra, Multi-variable calculus, Probability & Statistics, Discrete Math, Spoken Dialog Design, Web Development & Incubator, Software Engineering, Operating System, Database, Problem Solving, Security, NoSQL Database, Data Structures, Analysis of Algorithms, Artificial Intelligence, Machine learning, Deep Learning, Quantum Computing, Data Visualization

Programming Skills Stack

Programming Languages: C/C++, Java, Ruby, Python, Javascript/ES6, HTML5/CSS3

Past Experiences: C#, Emacs Lisp, Scheme

Technology stack: React/Redux, Meteor.js, Ruby on Rails, Node.js, Django, MongoDB, D3.js

Angular, iOS, Bash, Git, Unix, Apache, Nginx, Docker

Work Experience

Software Engineer Intern at Activision Blizzard, Inc. Los Angeles, CA

May 2018 – August 2018

- Worked on the matchmaking and data analytics/monitoring website for the best-selling game *Call of Duty* franchise, and built a live ops system alongside that ships new game events updates and hot-fixes to the game client engine on console/PC side
- Built front end with React.js, Redux, Redux-Saga, and high coverage front end testing with Jest, Enzyme and some Cypress
- Built back end with Django, Django REST framework and internal database. Docker container is used
- Debugged on console game client engine(C++/Lua) to get the events updates shown

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 Convolutional Neural Network 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 and 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 with Code Integration that uses web scraping to get homework information from school's education website (Mechanize, XPath)
- Designed an asynchronous system to process the information with Ruby on Rails 5 alpha features (ActiveJob, ActionCable with Redis 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 based on CMU's RavenClaw Architecture to move chess by voice
- Created a PVP match feature with meteor's built-in socket based push data service (Meteor.js, socket-io, MongoDB)
- Designed a materialized frontend with full text/voice inputs, chessboard and records tracking system (Meteor.js Blaze)
- <https://github.com/zhjch05/Voice-Control-Chess-Dev/tree/Jincheng-nlp>

Other Projects on [Github/zhjch05](https://github.com/zhjch05) including *code2html* plugin for Atom editor (500 public downloads), *CarSim* simulator for cars at toll, and more...

Extracurricular

- Microsoft China College Summer Camp high school participant

2013

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>