Jincheng Zhang

70 Morningside Dr 2710 Columbia Student Mail, New York, New York, 10027

(781)530-6034 • jincheng.zhang@columbia.edu • jczhang.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   GPA 3.5/4.0 May 2017

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

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

Data Structures, Analysis of Algorithms, Artificial Intelligence, Machine learning

Programming Skills Stack

Proficient: C++, Java, Ruby, Python, Javascript, HTML5/CSS3   Prior Experience: C#, Emacs Lisp, Scheme

Familiar with: Meteor.js, Ruby on Rails, Node.js   Can use: Angular 2, iOS cocoa, Bash, Git, Unix, Linux Apache, Nginx

Experience

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

- Created a preprocessor and a classifier to recognize basic handwritten math expressions with Convolutional Neural Network in Tensorflow, and OpenCV (Python).
- Wrote a general report of the research
- 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 (Ruby on Rails 5)
    - Action Cable: web socket with redis cache for push notification back to frontend
    - Active Job: asynchronous background processing to schedule web scraping task
    - Active Record: store the scraping result back to database
    - Parsing data with CSS Selector and XML XPath
    - Unit Testing and Continuous Integration that was deployed to Heroku
- 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

Cars Simulation at toll   Spring 2017

- Designed a python MVC architecture to visualize and animate cellular automata model to simulate car streams traffic at toll.
- https://github.com/zhjch05/carSim

Code2html *Atom editor plugin. More than 400 public downloads*.

- Created an editor plugin that converts code to html based literals for rendering in my blog website   Spring 2016
- https://github.com/zhjch05/atom-code2html

Extracurricular

- Microsoft summer camp high school observer   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