

Zhi Ji

1 Morningside Drive New York, NY 10025 | 646-897-8852 | zj2242@columbia.edu
<https://github.com/zhiji95> | <https://www.linkedin.com/in/zhiji1019/> | <https://zhiji95.github.io/>

EDUCATION BACKGROUND

Columbia University	<i>New York, NY</i>	<i>(Expected) 09/2018 - 12/2019</i>
MS in Electrical Engineering, GPA: 3.6/4.0		
Relevant Courses: Algorithms, Operating System, Database, Cloud Computing, Stream Processing, Deep Learning		
University of California Berkeley	<i>Berkeley, CA</i>	<i>01/2017 - 12/2017</i>
Exchange Student in Electrical Engineering & Computer Science		
Relevant Courses: Data Structure, Machine Learning, Communication Network		
University of Electronic Science & Technology of China	<i>Chengdu, CN</i>	<i>09/2014 - 07/2018</i>
BS in Electronic Information Engineering, GPA: 3.8/4.0		
Relevant Courses: C Language, Software Fundamentals, Computer System		

PROFESSIONAL SKILLS

- Technical Skills: Python, Java, JavaScript, C, C++, SQL, HTML, CSS, Scala, TensorFlow, Keras, Spark, Kafka, Linux kernel.
- Web Development: React, jQuery, Sass, DOM, AJAX, Node.js, Flask, Django, MongoDB, AWS, Docker, Akka, Play.

PROFESSIONAL EXPERIENCE

Jet/ Walmart Lab/e-commerce <i>Software Development Engineer</i>	<i>Hoboken, NJ</i>	<i>06/2019 – 08/2019</i>
<ul style="list-style-type: none">• Added features for Parcel delivery web application using React, JSX, jQuery, Django, Flask, Sass, Marshmallow, SQL and docker including front end, APIs and tests.• Built the barcode scanning page and interface and integrated with the rest of Parcel application workflow.• Worked on route optimization system for fulfillment center using Akka, Play framework and Kafka in Scala.		
Chinese Academy of Sciences <i>Machine Learning Engineer</i>	<i>Beijing, CN</i>	<i>04/2018 - 08/2018</i>
<ul style="list-style-type: none">• Developed several machine learning and deep learning models for stock price prediction and trading strategies.• Researched on the algorithm for detecting black product attack with imbalanced sample distribution and missing features.• Published a paper at CSAE 2018: https://dl.acm.org/citation.cfm?id=3277966		
Berkeley Video and Image Processing Lab <i>Research Assistant</i>	<i>Berkeley, CA</i>	<i>05/2017 - 12/2017</i>
<ul style="list-style-type: none">• Developed a sensor-based sorghum height and width estimation algorithm with Fast RCNN.• Programmed in C++ to control and adjust Intel RealSense camera parameters for data collection.• Published at Electronic Imaging 2018: http://www-video.eecs.berkeley.edu/papers/jihui-jin/jihui-height-ei-2018.pdf.		

PROJECT EXPERIENCE

Let's Meet	<i>Columbia University</i>	<i>02/2019 – 05/2019</i>
<ul style="list-style-type: none">• Built a web service for group meetup that recommends movies, restaurants and shows attendee's location and a chatting room.• Setup APIs using API Gateway with lambda functions and authentication using Cognito.• Applied React to implement user interface and hosted the frontend in an AWS S3 bucket.• Built the SQS, SES, DynamoDB and Elastic Search with machine learning for restaurant recommendation and email notification.		
Stock Price Visualization	<i>Columbia University</i>	<i>01/2019 - 05/2019</i>
<ul style="list-style-type: none">• Utilized Kafka and Spark to process raw stock prices data.• Trained a machine learning model taking the processed stream data as features to generate predictions.• Built the backend in Node.js, front end in jQuery and d3 for data visualization.		
Multi-thread Server, Scheduler and File System	<i>Columbia University</i>	<i>01/2019 - 05/2019</i>
<ul style="list-style-type: none">• Built different types of HTTP multi-thread server in C, including multi-processes, multi-threads and Nonblocking I/O.• Developed and added the customized scheduler to Linux Kernel and built a Linux file system from scratch.		
Internet of Things and Android Development	<i>Columbia University</i>	<i>09/2018 - 12/2018</i>
<ul style="list-style-type: none">• Implemented a RESTful API server with MongoDB, DynamoDB and AWS Lambda for an movement monitoring device.• Built an Android application communicating with the server, visualizing the data sent from the server.• Deployed a web site on S3 with an animation character mimicking the user's activity on front end by TensorFlow and JavaScript.		
Computer Vision	<i>Columbia University</i>	<i>10/2018 - 12/2018</i>
<ul style="list-style-type: none">• Designed and trained the conditional Deep Convolutional Generative Adversarial Networks with classifier for human face images completion and classification with high performance.• Refined a deep Q-learning algorithm for image restoration by Double Q-learning, Prioritized Replay and Dueling Q-learning.		