

# CHIQU LI

Seeking for 2020 Summer Internship | [www.linkedin.com/in/chiqu](http://www.linkedin.com/in/chiqu)  
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## EDUCATION

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<b>Columbia University</b>	09/2019 - 12/2020
Master of Science, Mechanical Engineering (Robotics)	New York, NY
<b>Wuhan University</b>	09/2015 - 06/2019
Bachelor of Engineering, Power System (GPA: 3.6/4.0)	Wuhan, CN
<b>Relevant Courseworks:</b> Cloud Computing & big Data, Databases, Deep Learning, Data Science, Evolutionary Algorithm	

## SKILLS

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Programming: Python, Java, JavaScript, C/C++, SQL, HTML, CSS, Node.js, Linux Shell  
Technologies & Tools: AWS, Microservices, Flask, RESTful, Git, Bootstrap, DynamoDB, TensorFlow, OpenGL

## PROJECTS

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<b>Restaurant Reservation Serverless Website</b>	02/2020
<ul style="list-style-type: none"><li>Built a serverless and dynamic website with AWS S3, API Gateway, Lambda, DynamoDB and Cognito</li><li>Created chatbot using Lex, adopted SQS queue to store information and sent the message by SNS and CloudWatch</li><li>Crawled USA restaurant information in Yelp with Requests and stored in Elasticsearch for further search</li></ul>	
<b>Full Stack Blog Web Application</b>	01/2020
<ul style="list-style-type: none"><li>Built by Flask and RESTful and host on AWS S3, users can log in, create, update and delete their existing blog posts</li><li>Used HTML templates, node.js, and WTForms to accept user inputs and used SQLAlchemy as an ORM for a database</li><li>Developed this application on local Git, synchronized to Github where remote web server could pull directly</li></ul>	
<b>Image Classification Deep Learning Projects</b>	09/2019 - 12/2019
<ul style="list-style-type: none"><li>Trained and visualized multiple CNN models to classify and recognize 10,000 pictures into specific categories and achieved 98% accuracy based on Google Cloud Computing, TensorFlow Keras and TensorBoard</li><li>Collected a dataset including hundreds of landmark pictures at Columbia University, trained a model from scratch, used data augmentation to improve accuracy and converted it to TensorFlow.js and predict on the webpage</li></ul>	
<b>Genetic Programming(GP) Projects</b>	09/2019 - 12/2019
<ul style="list-style-type: none"><li>Conducted Evolutionary Algorithm(EA) to solve Travelling Sales Person Problem and Symbolic Regression, which reached 1% error in 100,000 generations</li><li>Strengthened GP selection method by using Deterministic Crowding and Hierarchical Fair Competition</li><li>Created and visualized a 3D evolved robot with a variable morphology in C++ and OpenGL</li></ul>	
<b>Robot Operating System (ROS) Projects</b>	09/2019 - 12/2019
<ul style="list-style-type: none"><li>Accomplished subscribing and receiving joint movements of robots by python packages in Ubuntu16.04</li><li>Developed a cartesian control and inverse kinematics package to manipulate a robot's pose and velocity to ideal positions</li><li>Implemented RRT and A Star algorithm to achieve sampling-based motion planning on KUKA and UR5</li></ul>	

## INTERNSHIP

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<b>Project Analyst</b> , Imperial Vision -- Fuzhou, CN	07/2019 - 08/2019
<ul style="list-style-type: none"><li>Participated in building a hard hat recognition system to increase safety at the construction site by TensorFlow, which can directly recognize humans with or without a hard hat on the head</li><li>Analyzed, visualized over 50,000 face images to assess machine learning models and enhance image quality</li></ul>	

## AWARDS

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Excellent Student Scholarship	2017 & 2018
1st Prize in National Energy Saving & Emission Reduction Technology Competition	2018
Women's Team Championship of the College Student Tennis Competition of Hubei Province	2017