# CHENYU XI

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## EDUCATION

**Columbia University** New York, NY
M.S. in Electrical Engineering | Data-driven Analysis Expected in Dec 2019
Courses: Algorithm, Computer Networks, Database, Cloud Computing & Big Data, Natural Language Processing, Reinforcement Learning
GPA: 3.835/4.00

**Tianjin University** Tianjin, CN
B.S. in Electrical Science and Technology Sep 2014 – Jul 2018
GPA: 3.73/4.00 (top 5%)

## TECHNICAL SKILLS

**Programming Language:** Python, Java, JavaScript, HTML/CSS, SQL
**Frame/Tool:** Linux, Git, Flask, Express, Node.js, MongoDB, AWS, PyTorch

## PROJECTS

**AWS Serverless Dining Assistant** Feb 2019 – Current
- Building a dining concierge chatbot, which offers restaurant suggestions through chatting with users
- Building a chatbot using Amazon Lex; Building web frontend with HTML/CSS
- Yelp API is used to make a recommendation, using API Gateway to setup chat API
- Developing authentication system using Cognito

**To-Do API** Jan 2019
- Designed a RESTful API with Node.js using Express that allows users add/check to-do events online
- Adopted MongoDB for data management using Mongoose, added security features with token authentication
- Wrote test cases for API using Mocha, deployed API on Heroku

**NYC Jobs Web Application** Oct 2018 – Nov 2018
- Designed 3NF normalized NYC Job information database based on NYC open job dataset, using PostgreSQL
- Compiled webserver using Python Flask. Built web frontend with HTML/CSS
- Designed User/Admin Login system based on Flask-Login. Allow users to search jobs and add applications; Allow admins to add/delete positions and view user applications, using SQLAlchemy and JavaScript
- Visualized NYC salary distribution using JavaScript

**Content Delivery Network** Oct 2018 – Nov 2018
- Designed a HTTP proxy with Python socket programming that monitors connection throughput value in real-time and streams the highest quality encoding that the connection can handle

**Android Apple Ranking Application** Sep 2018
- Designed android app that allows users to check top downloaded songs/movies/paid apps in iTunes Store
- Obtained ranking information and icon URL from Apple RSS Feeds by parsing fetched XML file
- Designed a menu allow users switch ranking board between different areas

## RESEARCH EXPERIENCE

**Neural Acoustic Processing Lab, Columbia University** Feb 2019 - Current
**Research Assistant**
- Conducting music sources separation with neural networks: Applying Deep Clustering and CNN in order to separate music signals with regard to different sources using PyTorch
- Clustering same source T-F bins by assigning d-dimensional embedding