HAOMIAO HAN

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EDUCATION

Cornell Tech at Cornell University, New York, NY   September 2019 - May 2021
Master of Science in Information Systems and Applied Information Sciences, *concentration in Connective Media* | GPA: 3.9
Relevant Coursework: Algorithms and Data Structures for Applications, Applied Machine Learning, Data Science in the Wild, User Experience and User Research, HCI and Design

College of Arts and Science, New York University, New York, NY   September 2015 - May 2019
Bachelor of Arts (Magna cum laude) in Computer Science, Middle Eastern Studies | GPA: 3.82
Relevant Coursework: Natural Language Processing, Agile Software Development and DevOps, Applied Internet Technology, Database Design and Web Implementation
Honors/Awards: Dean's List for the Academic Year (every year from 2015 to 2019); University Honors Scholar

NYU Abu Dhabi, Abu Dhabi, United Arab Emirates   Fall 2017
Semester Study Abroad Program

TECHNICAL SKILLS

Software Development:	Python (sklearn, pandas, numpy, spaCy, NLTK), Java
Web Development:	JavaScript (Node.js/Express, React, Redux), HTML, CSS (Bootstrap)
Data and Database:	DynamoDB, MongoDB, SQLite, MySQL, Tableau
Other Technical Skills:	AWS (CloudWatch, Comprehend, EC2, Lambda, S3, SNS), CI/CD, Prototyping (Sketch, Adobe XD), UI/UX research, Agile and Scrum methodologies, Windows, UNIX

EXPERIENCE

Amazon Web Services (AWS), *Software Development Engineer Intern,* Herndon, VA   May - August 2020
- Designed a pipeline for automatically labeling and resolving customers' tickets using machine learning and natural language processing techniques
- Implemented the ticket labeling pipeline with **Python** and **AWS Services** (Comprehend, DynamoDB, S3 and Lambda); the model achieved an accuracy of **87%**, labeled **150+** tickets per week, and helped the team resolve **22%** more tickets per week than before
- Designed and implemented a more intuitive and interactive help wizard page (using **React** and **Redux**) for users to self-troubleshoot their issues, which replaced the existing text-only pages and greatly improved customers' experience

ACADEMIC PROJECTS

U.S. Flight Delays and Cancellations Analysis (Python, Tableau)   Spring 2020
A data science project that aims to analyze and predict flight delays and cancellations
- Cleaned and analyzed a dataset with **18+ million** datapoints using **pandas** and **numpy**; created data visualizations on flight delay and cancellation trends using **Tableau**
- Performed feature engineering on the dataset and developed several machine learning models using **scikit-learn**; achieved an accuracy of **82.3%** when predicting flight cancellations

TeachMe (JavaScript, HTML, CSS, MongoDB)   Spring 2019
A web app that connects creatively skilled individuals with those who wish to learn these skills
- Wrote user stories and use cases and created wireframes for the product
- Led the development process and coordinated with team members by setting up the initial development environment, creating product backlogs, planning for each sprint, facilitating daily scrums and leading sprint reviews and team retrospectives
- Created and implemented user friendly front-end views using **React** and **Bootstrap**
- Designed **MongoDB** database schemas and implemented back-end APIs using **Node.js/Express** and **Mongoose**

Text Summarizer (Python)   Spring 2019
A program that automatically generates summaries for news articles
- Conducted research on text summarization techniques and experimented with different approaches to text summarization
- Created the text summarizer by first vectorizing words using **word2vec** (implemented with **spaCy.py**) and then performing **k-means clustering** (implemented with **scikit-learn**) to select the most representative paragraphs of the article
- Achieved a maximum accuracy rate of **0.6** (as measured by ROUGE-L F-Score), compared to a baseline of approximately 0.4-0.5

RateMyCards (JavaScript, HTML, CSS, MongoDB)   Fall 2018
A web app that recommends users the best credit cards according to their monthly spending habits and credit scores
- Conducted research on the credit card ecosystem, wrote user stories and created wireframes
- Built a full-stack web app with **Node.js/Express, MongoDB** and **Bootstrap**; integrated page templating with **Handlebars.js**
- Implemented user registration and authentication with **Passport.js**