MINGJIE CHEN

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EDUCATION

University of California, Berkeley, Berkeley, U.S.

Aug. 2019 - Dec. 2019

Visiting Student, Fall 2019

Northeastern University, Shenyang, China

Sept. 2017 - Present

Bachelor's Degree in software engineering (International, English) (Expected in July. 2021)

GPA: 3.947 (89.47/100); **GRE:** 326 + 3.5 (V: 160, Q: 166); **JLPT** N3

TOEFL 103/120 (R: 30, L: 25, S: 23, W: 25) Best Score: 109/120 (R: 30, L: 28, S: 23, W: 28) July 2020

SKILLS & INTERESTS

Technical Skills: Java (Spring, Spring Boot, Spring Cloud, SSM), JavaWeb (Vue, HTML, CSS, JavaScript, jQuery, etc.), Python, Lisp (Scheme), SQL, PyTorch, TensorFlow, C, C++.

REWARDS & HONORS

| • | Outstanding Student Cadre of Northeastern University (Top 4%) | Nov. 2020 |
|---|--|-----------------------|
| • | Finalist Award of Mathematical Contest in Modeling (MCM/ICM) (Top 1%) | April 2020 |
| • | Outstanding Student of Northeastern University (Top 3%) | Nov. 2019 |
| • | Provincial First Prize of National College Students Mathematical Modeling Comp | petition Oct. 2019 |
| • | Second Prize of Northeastern University Mathematical Modeling Competition | Aug. 2019 |
| • | Second Prize of the National College English Contest | May. 2019 & May. 2018 |
| • | Provincial Third Prize of 'LanQiao' Cup Algorithm Competition | March. 2019 |
| • | National Scholarship (Top 1%) | Nov. 2018 |
| • | First-class Scholarship (Top 2%) | Nov. 2018 |
| • | Outstanding Students Pacesetter of Northeastern University (Top 1%) | Oct. 2018 |

RESEARCH & PROJECTS

ModelCloud AI Model Training and Service Cloud Platform

Oct. 2020 - Present

<u>Developer</u>, Northeastern University, Prof. Guibing Guo (<u>Guibing Guo</u>)

- Description: Aimed to provide online artificial intelligence application solutions by the AI platform for users to use DJL (a Java-implemented Deep Learning Framework by Amazon) as the framework for large-scale training, manage and iterate data sets and models.
- Responsibility: Designed and built the front-end web pages of this platform; Wrote back-end codes using Java Spring, and use DLJ to provide algorithms of specific AI models like ResNet, InceptionNet, AlexNet, LSTM, Transformer, etc.; Designed and built the online data annotation and model visualization parts.

• Cross-border E-commerce Borrow-sell Platform

June. 2020 - July. 2020

<u>Developer</u>, NeuSoft, (<u>Front-end Code</u>)(<u>Back-end Code</u>)

- Description: Aimed at developing a system that was easy to use for users (manufactures with companies and brands, stores, buyers and administrators) to manage their back-stage data in the cross-border e-commerce platform.
- Responsibility: Built and constructed both the front-end and the back-end part of manufacturer information management, user information management and store information management; Used Vue, Vuex, Axios, etc. as my front-end core techniques, SSM/Spring Boot and Spring Cloud as my backend frame, MyBatis as my ORM framework and Redis as our distributed cache.

• CS61B Course Projects in Java (<u>Code</u>)

Sept. 2019 - Dec. 2019

Developer, University of California, Berkeley. (CS61B)

Proj0 Signpost: Finished the puzzle game Signpost with MVC pattern.

Proj1 The Enigma: Stimulated the Enigma machine that Germany used in World War II for encryption.

Proj2 <u>Tablut</u>: Established a chess game and built a simple AI using Game Tree and α - β Pruning.

Proj3 Gitlet: Stimulated a version control system: Git.

Vehicle Motion Generation

Sept. 2019 - Nov. 2019

Advised by Prof. Masayoshi Tomizuka and Post doctor Liting Sun.

- Description: Using Imitation Learning and Reinforce Learning techniques to predict and simulate vehicles driving behaviors on roads with the data collected by MSC Lab.
- Responsibility: I was responsible for reproducing the paper: ChauffeurNet: Learning to Drive by Imitating the Best and Synthesizing the Worst, and Using Generative Adversarial Imitation Learning (GAIL) to simulate vehicles driving behaviors.

Computer Vision for Plant Phenotyping of Maize Plants

July 2019 - Sept. 2019

Research Assistant, North Carolina State University, ARoS Laboratory (ARoS Lab)

Advised by Prof. Edgar Lobaton and Ph.D. candidate Nathan Starliper.

- Description: Adopted computer vision and image processing techniques to perform full plant phenotyping of maize plants for the purpose of monitoring crop health, growth stage, and water stress.
- Responsibilities: Implemented deep learning techniques to extract leaf tips and collars of the plants from the images; Used them to determine various geometric/topological properties of the plants that could provide insight into the health of the plant

Legal Judgement Prediction

Feb. 2019 - July 2019

Researcher, Northeastern University, Prof. Guibing Guo (Guibing Guo)

- Description: Predicted the charges and terms of penalty based on the crime fact descriptions data and related law articles by the intelligent law judgment system.
- Responsibilities: Implemented an encoder-decoder model and tried different encoders/decoders like SVM (multiples times for related articles), CNN (to extract features) and LSTM (for prediction); Adapted selfattention and Transformer model.

Music Analyze and Recommend Project using Clustering

Mar. 2019 - June 2019

Developer, Carnegie Mellon University, Prof. Pradeep Ravikumar (Pradeep Ravikumar)

- Description: It was an individual project aimed to utilize the audio feature clustering extracted from raw -Description: Aimed to utilize the audio feature clustering extracted from raw audio files (mp3s) and build a simple song recommender that suggested new tracks based on user preferences and inputs.
- Responsibilities: Performed clustering (K-means, Hierarchical Clustering, DBSCAN) on the Free Music Archive (FMA) dataset; Built a recommender system using CF, contend-based recommendation and userbased recommendation to recommend songs that were new and attractive to the users.

Animal Image Detection and Classification System

Dec. 2018 - Feb. 2019

Developer & Team Leader, Institute of Automation, Chinese Academy of Sciences, Prof. Shuangshuang Li

- Description: Built an animal detection and classification system based on CNN to detect and classify animal types when an animal image was input to the system
- Responsibilities: Led the team and planned for task assignments; Implemented an animal detection and classification system based on CNN; Used python web crawler to collect animal pictures as our dataset; Implemented a CNN model of 4 hidden layers with 2 fully connected layers and two Max Pooling layers; Output multiple classification results via SoftMax function.

Patent:

An animal image search system based on convolutional neural network Patent number: 2019100354, Australian Innovation Patent, Valid for 8 years. April 4th 2019

EXTRACURRICULAR ACTIVITIES

Class Vice-Monitor

Sept. 2018 – Present June. 2018 – Jun 2019

Undersecretary of Student Psychology Club

Nov. 2018

Volunteer at Liaoning Science and Technology Museum

Commissary of Mentality in class

Sept. 2017 - Aug. 2018

OTHER-COURSES

*UGBA*103: *Introduction to Finance (Full Attendance Audit)*

2019 Fall

Dmitry Livdan, Associate Professor, Haas School of Business, University of California, Berkeley

Coursera: Deeplearning.ai (<u>Deep Learning</u>)

Dec. 2018 - Feb. 2019

Andrew Ng, Adjunct Professor, Stanford University