MINGJIE CHEN

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EDUCATION

Carnegie Mellon University, *School of Computer Science*   Aug. 2021 – Present
Master's Degree in Information Technology, Privacy Engineering (Expected in Dec. 2022)
University of California, Berkeley, *Department of EECS*   Aug. 2019 – Dec. 2019
Concurrent Enrollment Student, Fall 2019
Northeastern University, *Software College*   Sept. 2017 – July 2021
Bachelor's Degree in Software Engineering
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++, Machine Learning, Deep Learning.

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 Competition   Oct. 2019
- Second Prize of Northeastern University Mathematical Modeling Competition   Aug. 2019
- Second Prize of the National College English Contest   May. 2019 & May. 2018
- 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 – July 2021
Developer, Northeastern University, Prof. Guibing Guo ([Guibing Guo](#))
- 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
Developer, NeuSoft, ([Front-end Code](#))([Back-end Code](#))
- 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** ([Code](#))   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 [Tablut](#): 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

Research Assistant, University of California, Berkeley, MSC Laboratory ([MSC Lab](MSC Lab))
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 self-attention and Transformer model.

- **Music Analyze and Recommend Project using Clustering**   Mar. 2019 – June 2019
Developer, Carnegie Mellon University, Prof. Pradeep Ravikumar (Pradeep Ravikumar)
- 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 user-based 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   April 4th 2019
Patent number: 2019100354, Australian Innovation Patent, Valid for 8 years.

EXTRACURRICULAR ACTIVITIES
- Volunteer and Participant of 7th Privacy + Security Forum   Sept. 2021 – Oct. 2021
- Class Vice-Monitor   Sept. 2018 – July 2021
- Undersecretary of Student Psychology Club   June. 2018 – Jun 2019
- Volunteer at Liaoning Science and Technology Museum   Nov. 2018

OTHER-COURSES
- *UGBA103: Introduction to Finance (Full Attendance Audit)*   *2019 Fall*
Dmitry Livdan, Associate Professor, Haas School of Business, University of California, Berkeley
- *Coursera: Deeplearning.ai (Deep Learning)*   Dec. 2018 – Feb. 2019
Andrew Ng, Adjunct Professor, Stanford University