Yi Chen

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Education

- **University of Wisconsin-Madison** Madison
  Honors in Major Computer Sciences BA, Mathematics BA with GPA 3.93 *January 2019 - May 2022*

Honors and Certifications

- **Dean's List** Fall 2020, Spring 2020, Fall 2019, Spring 2019
- **UW-Madison Undergraduate Scholarship for Summer Study** 2020, 2021
- **Coursera Andrew Ng's Deep Learning Specialization** Neural Networks and Deep Learning; Convolutional Neural Networks; Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization; Structuring Machine Learning Projects;
- **SIELE B1** Servicio Internacional de Evaluación de la Lengua Española

Programming Skills

- **Languages:** Java, Python, C, HTML/CSS/JS, SQL, MATLAB, Haskell, Rust
- **Technologies and Frameworks:** Node.js, PyTorch, numpy

Experience

- **UW-Madison Department of Computer Science** Madison
  CS540 Intro. to A.I. Peer Mentor *September 2020 - Present*
  - Aid students with course homework related to Artificial Intelligence and respond to questions related to AI and Python on Piazza by devoting 6 to 7 hours each week to facilitate students daily
  - Support students with code debugging and impart substantial knowledge regarding the fundamentals of neural networks to clarify students' concepts
  - Arrange one-to-one study sessions to assist students with programming assignments
- **McBurney Disability Resource Center** Madison
  Note Taker *March 2020 - Present*
  - Create class notes with impeccable attention to detail and accuracy and underline essential aspects of the notes
  - Upload a legible copy of notes on McBurney Center's website in PDF format within 24 hours of the end of class
- **UW-Madison Department of Electrical and Computer Engineering** Madison
  Undergraduate Research Assistant *June 2021 - Aug 2021*
  - Architected and implemented crowd clustering algorithms while executing tests and simulations to establish results
  - Interpreted research papers and implemented algorithms described in research paper through Python and JavaScript languages
- **Institute of Computing Technology, Chinese Academy of Science** Remote during Pandemic
  Internship *August 2020 - September 2020*
  - Understood compiler and performance optimization
  - Read research paper over the topic of optimization
  - Wrote technical report on compiler with a focus on GCC optimization
- **Coding for Good** Madison
  Web Developer - Club member *September 2019 - May 2021*
  - Improved the design of code and eliminated redundancy via code refactoring while optimizing the code for future reuse
  - Utilized EJS and Node.js for the development of New-Event-Section's front-end and back-end
  - Deployed HTML, CSS, JS, and jQuery to architect and implement a vertical cover-flow slideshow
- **Greater University Tutoring Service (GUTS)** Madison
  Spanish Tutor *April 2019 - December 2019*
  - Prepared class and required topics to help beginners and intermediate level students
  - Helped students to understand grammar by explaining how to construct certain syntax
  - Practiced oral expression skills with students
- **Chinese Undergraduate Students Association (CUSA)** Madison
  WeChat Mini-Program Developer *January 2019 - December 2019*
  - Designed and restructured the interface to optimize software per requirements
  - Efficiently managed the source code with the usage of Git and GitHub
  - Created new pages of the program by utilizing HTML, CSS, and JavaScript

Projects

- **A Single Shot MultiBox Detector Based Handwritten Formula Detector** Course project for CS539, Introduction to Artificial Neural Networks. Successfully created and annotated handwritten dataset to train a neural network architecture called ScanSSD to apply architecture to handwritten formula detection.
- **Understanding, Analysis, and Comparison of Convolutional Neural Network Architecture** Course project for CS532, Matrix Methods in Machine Learning. Organized and worked within a team of 3 students. Read several conference papers over the topic of convolutional neural networks. Wrote a report that summarized the main concepts of these articles.
- **TapWar** A two-player game with 50K downloads on App Store. Player who taps faster in the game is the winner. In this project, I learned how to rotate UILabel.
- **Mogicians Manual - iOS Version** Proficiently converted the Android version of App to the iOS version. Implemented the user interface code only with Swift without a storyboard. Utilized cocoapods to install a third-party library to display GIF images. Integrated AVFoundation framework for audio function. Available on the GitHub. (Not available on App Store due to some technicalities.)
- **Sync SH** Developed an iOS app during high school for the management of mathematics homework. Learned the function of pushing notifications in iOS. Utilized a framework same as Parse to upload and notify about homework.
- **ChanGE** Recoded a Puzzle Game from Objective–C to Swift after the announcement of Swift. Developed a countdown mechanism with NSTimer/Timer. Implemented the animation of Timer with UIView animate function.

Languages

- **Chinese** - Native Proficiency
- **English** - Full Professional Proficiency
- **Spanish** - Professional Working Proficiency