

Xiyan Cai

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EDUCATION

- University of Illinois at Urbana-Champaign** Champaign, IL
Incoming Student - Master of Computer Science *deferred*
- New York University Shanghai** Shanghai, China
Bachelor of Science - Computer Science; GPA: 3.92 *August 2016 - May 2020*
Bachelor of Science - Data Science (Math Track); GPA: 3.79
 - Study Away:** New York University, NY, New York, United States, August 2018 - May 2019
 - Honors and Awards:** Dean's List (Academic years 2017 -2019), Recognition Award (Academic years 2017 - 2019), Honorable Mention in The Mathematical Contest in Modeling (February 2018), National Silver Prize in China Thinks Big Research Competition (October, 2017)

PUBLICATION

1. T. Xu, X. Cai, Y. Wang, X. Wang, S. Chung, E. Fieremans, J. Rath, S. Flanagan, and Y. W. Lui. Identification of relevant diffusion mri metrics impacting cognitive functions using a novel feature selection method. In *2019 IEEE Signal Processing in Medicine and Biology Symposium (SPMB)*, pages 1–6, 2019

EXPERIENCE

- Amazon AI Lab** Shanghai, China
Software Development Engineer Intern *March 2020 - Present*
 - MXNet:** Tested integration of NumPy in MXNet with Scikit-Learn, fixed bugs and attached patches.
 - Gluon-TS:** Worked on shortening the time spent on the components of transformation algorithms.
- New York University Shanghai** Shanghai, China
Teaching Assistant *January 2018 - May 2018*
 - Lectures:** Tutored in Prof. Zheng Zhang's Intro to Computer Science.
 - Office Hours:** Held office hours 3 hours a week to facilitate students' understanding of course material
 - Review Sessions:** Held review sessions for 3 times to excel students' performance in exams.
- Bund Education** Shanghai, China
Olympic Math Instructor *September 2017 - December 2017*
 - Preparation:** Joined in meetings with Prof. Po-Shen Loh from Carnegie Mellon University to integrate course material
 - Lectures:** Organized and led weekly 10-student classes that focused on Math problems.

PROJECTS

- Parallelization of Monopoly Simulations (Game Designing, Parallel Computing):** Implemented the monopoly game and enabled it to run on the cluster parallelly without users' access to the command line. Tech: Python (Multiprocessing), JavaScript (Electron). (February - May '20)
- Electronic Health System (Web Development):** Built an online system for the hospital and enabled time scheduling, messaging and personal information management. Tech: Python (Flask), HTML, JavaScript. (September - December '19)
- Identification of Relevant Diffusion MRI Metrics Impacting Cognitive Functions (Machine Learning):** Identified the features by proposing a new feature selection algorithm "Crossover Best First Search". Tech: Python. (June - August '19)
- Chinese Calligraphy Styles Classification (Deep Learning):** Classified five styles of Chinese Calligraphy and achieved the accuracy of 0.97. Tech: Python (PyTorch) (July '18)
- Prediction on Taxi Traveling Duration (Machine Learning):** Developed a navigation website and predicted the taxi duration based on the dataset provided by Google Girl Hackathon. Tech: JAVA, Python (July '18)

VOLUNTEER EXPERIENCE

- Education Without Barriers** Online
Co-Founder, HR Committee Manager *October 2016 - Present*
 - Recruitment:** Recruited 200+ volunteers to provide online education for students at rural areas
 - Management:** Conducted weekly online meeting for committee members
- Harvard Summit for Young Leaders in China** Shanghai, China
Teaching Fellow *August 2018*
 - Lectures:** Assisted a Harvard student in 4 Machine Learning classes with 80 students in total, facilitating the course progress
 - Office Hours:** Tutored students in office hours, addressing their questions about course material
- Dean's Service Scholar of NYU Shanghai with PEER Organization** Hunan, China
Volunteer Teacher *November 2016 - May 2017*
 - Training:** Participated in 10 workshops to learn education methodology to design courses professionally and effectively
 - Volunteering:** Lead 30-student seminars and English classes based on project-based learning at a high school

SKILLS SUMMARY

- Languages:** Python, JavaScript, HTML, SQL, JAVA, C
- Soft Skills:** Leadership, Event Management, Writing, Critical Thinking, Fast Learning