

# WENDI LI

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## Education

### University of Wisconsin-Madison

Aug. 2021 - May 2023

*M.S. in Computer Science (GPA 4.00/4.00)*

*Madison, Wisconsin*

- **Relevant Coursework:** Advanced Algorithms (A), Foundations of Data Management (A), Computer Vision (A), Data Visualization (A), Database Management Systems (A), Machine Learning (A), High-Performance Computing (A), Big Data Systems (A), Advanced Deep Learning (A), Advanced Computer Network (A).

### University of California, Berkeley

Aug. 2019 - Jan. 2020

*Exchange Program for Fall 2019*

*Berkeley, California*

- **Relevant Coursework:** High-Dim Data Analysis with Low-Dim Models, 3D Image Processing.

### South China University of Technology

Sept. 2016 - Jun. 2020

*B.E. in Computer Science and Technology (Major GPA 3.89/4.00)*

*Guangzhou, China*

- **Relevant Coursework:** Computer Graphics (92), Software Engineering (89), Design & Analysis of Algorithm (90), Principle of Compiler (95), Android Development (96), Operating System (90), Computer Security (91), High-Performance Computing and Cloud Computing (96), Introduction to Pattern Recognition (91), Multimedia Technology (95), Computer Network (93), Intelligent Robots Technology (95).
- **Awards:** National Scholarship, China Computer Federation Elite Collegiate Award, Stars of Tomorrow in Microsoft.

## Experience

### Epic Systems

Jul. 2023 - Present

*Full Stack Software Engineer*

*Madison, Wisconsin*

- Developed the workflow for obstetricians to trace the patient's obstetric status by creating a pregnancy episode based on **C#** (server code), **TypeScript with React** (client code), and **MUMPS** (database). Finished **unit testing**, **integration testing**, and **performance testing** of this workflow. Implemented the feature tracking to record and analyze the usage of this functionality.
- Developed Spotlight Cards print groups based on **HTML/CSS**. The obstetricians could review relevant information summary pulled from the patient database without needing to visit the navigator section.

### TikTok

Jun. 2022 - Sept. 2022

*Software Engineer Intern*

*Mountain View, California*

- Made automatic data processing pipeline for AR platform users to store AR data and generate AR models. Developed **Visual Positioning Service** (VPS) map reconstruction service based on **PARA** cloud platform.
- Employed video cloud **ImageX** to based on **Toutiao Object Storage** (TOS) to realize multi-part upload, which supports GB-level video uploading and processing. Implemented asynchronous producer-consumer pattern based on **Apache Thrift** to process high-load VPS map generation requests.

### Microsoft Research Asia

Apr. 2020 - Jul. 2021

*Machine Learning Intern*

*Beijing, China*

- Developed the quant platform **Qlib** on **GitHub** ([github.com/microsoft/qlib](https://github.com/microsoft/qlib)), designed **Meta-Controller**, **Reweighter** frameworks in **Qlib**. Deployed and trained machine learning models implemented in **PyTorch** on **Azure clusters**. The **parallelization** is realized by **Task Pool** mechanism. Recorded model performances in **MLflow**.
- Focused on data feeding in stock market prediction. Proposed a meta-learning-based method that could effectively forecast the evolution of data distribution and improve the performance of models.
- Published an academic paper (**first author**) "DDG-DA: Data Distribution Generation for Predictable Concept Drift Adaptation" on *AAAI Conference on Artificial Intelligence (AAAI-22)*.

## Projects

### MD5 Crypt Cracking Algorithm based on GPU-Accelerated CUDA

Sept. 2022 - Dec. 2022

- Implemented an **MD5 hash** cracker for passwords based on **CUDA** with efficient data parallelism.
- Created a **self-contained MD5 resume** by inserting digit number images created by **identical prefix collision**.

### License Plate Recognition System based on Domain Adaptation

Feb. 2022 - Jun. 2022

- Applied domain adaptation to allow knowledge transfer from the original training environment (source domain) to various inference environments (target domain). Built a license plate recognition system based on **StreamLit**.
- Implemented traditional machine learning algorithms and domain adaptation algorithms (**DANN**, **CCSA**).

## Technical Skills

**Languages:** C++, C#, Python, TypeScript, Java, JavaScript, SQL, Ruby, MATLAB,  $\text{\LaTeX}$

**Developer Tools:** Linux, Docker, VS Code, Eclipse, Qt Creator, Android Studio, tmux, Git

**Technologies/Frameworks:** React, HTML/CSS, Unreal Engine, Unity 3D, PyTorch, TensorFlow, MLflow, Jupyter Notebook, Apache Thrift, Apache Spark, Apache Hadoop, CUDA, OpenMP, Open MPI