

DANNI SHI

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Education

University of Rochester

Aug. 2021 - Dec. 2022

M.S. in Computer Science (GPA: 3.8/4.0)

Rochester, NY

- Relevant courses: Collaborative Programming & Software Design, Computer Networks, Data Mining, Machine Learning

Central South University

Sep. 2016 - Jun. 2020

B.S. in Intelligence Science and Technology (with Honors)

Changsha, China

- Relevant courses: Data Structure, Algorithm Analysis and Design, Database Systems, Principle of Operating Systems

Professional Work Experience

Product Manager Intern

Mar. 2021 - Jul. 2021

NIO, Inc. digital cockpit team

Shanghai, China

- Worked closely with Developers, UX, and QA to design and lead features for the multi-display digital cockpit driving experience
- Learned how business priorities and engineering trade-offs need to be balanced in an agile, team-based environment
- Obtained experience working with Agile methodology and product-related mindset to be a more effective developer

Undergraduate Research Assistant | Paper

Jul. 2019 - Jun. 2020

Central South University

Changsha, China

- Cleaned and preprocessed 66k+ entries of raw data collected from patients' IVF medical examination results using **Python**
- Predicted early pregnancy loss after IVF-ET with 97% accuracy by building multiple machine learning models with **scikit-learn**. Our best ML model is actively used by the Reproductive and Genetic Hospital of CITIC-Xiangya

Relevant Project Experience

NADBenchmark Dataset Website | GitHub link

Oct. 2022 - Current

- Designed solutions to redeveloped the old static websites consisting of HTML into a dynamic web-based application
- Developed clean and maintainable services using **Python** and **Flask** based on the product and frontend requirements
- Modeled and implemented the entire database schemas for the project with **MongoDB** and **AWS S3**
- Created RESTful APIs to support **CRUD** operations and other functionalities, and did unit testing with **Postman**

Multi-vendor Restaurant Marketplace Website | GitHub link

August 2022

- Developed a full-stack online food-ordering system with **Django** and **PostgreSQL** for the backend, **HTML/CSS**, **Bootstrap**, and **JavaScript** for the frontend, and deployed it on **Linode** with **gunicorn** and **nginx**
- Implemented RESTful APIs with Python to support CRUD operations so that vendors can manage their menus
- Utilized **GeoDjango** and **Google Map APIs** to support showing nearby restaurants and location-based search
- Constructed **jQuery AJAX** widgets for features such as the shopping cart to render data in a more user-friendly way

Command-Line To-Do App | GitHub link

June 2022

- Built command-line interfaces with **Typer CLI** in **Python** to take and process commands, options, and arguments
- Utilized **namedtuple** and **dictionaries** to handle the to-do data, and **JSON** files to manage persistent data storage
- Applied test-driven development by writing unit tests for every feature using **pytest** and Typer's **CliRunner**

Distributed Version Control System in Rust

Oct. 2021 - Dec. 2021

- Designed and developed a fully functional DVCS in group using **Rust** and scored higher than **90%** students in class
- Handled writing and reading files operations by serializing and deserializing JSON data with Rust's **SerDe** framework
- Implemented interfaces for *clone*, *push*, and *pull* to transfer files by integrating Linux *rsync* commands into Rust code
- Created all the unit tests in Rust and integration tests in **shell** to troubleshoot the system and enhance error handling

Technical Skills

Languages: Python, C++, JavaScript, Rust, SQL, HTML, CSS, Shell/Bash scripting, Matlab

Frameworks & Libraries: Django, Flask, jQuery, NumPy, Pandas, scikit-learn, OpenCV, PyTorch

Database & Other: MySQL, PostgreSQL, MongoDB, AWS, Postman, Git, Linux