

# ZHENGHANG HU

240-879-8688 | <mailto:hu4396@terpmail.umd.edu> | <https://github.com/zhenghanghu>

## EDUCATION

**Bachelor of Science, Computer Science**

**GPA: 3.77**

**University of Maryland, College Park**

*September 2018 - May 2022*

**Courses:** Database Management Systems, Data Structures, Algorithms, ACM/ICPC Training, Database Design, Software Engineering, Mobile App Development, Machine Learning

## AWARDS

**2020 ICPC North America Championship Final Round Qualifier**

*February 2020*

Mid-Atlantic Regional **ACM-ICPC** Programming Contest

*November 2019*

- Ranked **3<sup>rd</sup> among 150** teams

**1<sup>st</sup> prize** – China National Olympic Informatics (High School Programming Contest)

*September 2017*

- Top **100 among 2000** competitors who passed qualifying test

## Experience

**Undergraduate Teaching Assistant**

*August 2021 - May 2022*

**University of Maryland, College Park, MD**

- Worked as the TA for the Database Design and Computer Security offered by the computer science department
- Graded hundreds of course assignments and midterm submissions
- Held office hours twice a week to answer courses-related questions, offer guidance and explanation on assignments, and help students with midterm review
- Monitored and replied technical and logistic questions on Discussion Board
- Provided the professor with feedback on students performance

## PROJECTS

**Second-Hand Trade Platform**

*June 2021*

- Led a team of three to develop a second-hand trade platform with **React Native** and **Firestore**
- Designed ER-diagram and database schema to support the application logic
- Implemented all essential features including user authentication, posting items, messaging, and managing existing items with **React Native**, **Firestore** and **NativeBase**
- Managed the sharing of data between react components with **Redux**
- Enabled data persistence with **Firestore**(a NOSQL cloud database) and cache
- Followed **Agile** development workflow and performed version control with **Git**.

**Online Chess Game**

*December 2020*

- Developed a full-stack chess game web app that features game replay, game resume, global ranking, and AI algorithm that supports player-computer mode
- Exposed the backend APIs including user authentication and game engine proxy with **Python Flask**
- Achieved frontend chessboard graphical user interface with **React**
- Converted game data into FEN notation and enabled user data persistence with **Amazon RDS**
- Implemented an interactive AI capable of making split-second decisions using **min-max** search

**Facial Recognition Cybersecurity Project**

*November 2019*

- Integrated with **Face++ API** in **Python** to detect pretexting threat on portable **raspberry-pi** with camera
- Constructed facial recognition program that operated at the same rate (**1s**) as the mainstream product

## SKILLS

- Languages: C, C++, Java, Python, JavaScript, Rust, SQL, Ruby, Ocaml, Matlab
- Tools and frameworks: Git, Docker, AWS, Firebase, NodeJS, Spring Boot, Express, React, React Native, Vue, PostgreSQL, NumPy, HTML5, Linux