# Yujie Sun

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## EDUCATION

**Northeastern University** — Boston, US
*MS in Applying Machine Intelligence* — *09/2022 - Current*

- **GPA**: 3.8/4.0
- **Expected graduation**: 2024/04
- **Anticipated Coursework**: Data Mining Applications, Fundamentals of Artificial Intelligence,Applications of Artificial Intelligence,Data Management and Big Data

**Civil Aviation University of China** — Tianjin, China
*BS in Information Security* — *09/2017 - 06/2021*

- **GPA**: 3.1/4.0
- **Relevant Coursework**: Operating System, Computer Network, ,Data Management and Big Data,Algorithms and Data Structures,Probability and Statistics,Linear Algebra

## RESEARCH EXPERIENCE

**Design and Implementation of Intelligent Warehouse Logistics Robot** — Tianjin, China
*Research Assistant,Advisor: Qinyan Shi, Civil Aviation University of China* — *02/2018 - 03/2019*

- Used a C51 micro controller to complete basic robot commands.
- Utilized shortest path planning for cargo feature recognition and computer vision scanning of target QR codes.
- Optimized the success rate of QR code identification base on OPENCV.
- Developed a real-time monitoring interface based on streaming transmission technology in web.

**Design and Implementation of a Management Platform for Colleges** — Tianjin, China
*Research Assistant,Advisor:Hongjun Heng,Civil Aviation University of China* — *04/2019 - 03/2020*

- Developed frontend and backend of College Management website and took the responsibility of designing, coding, building, analyzing, and maintaining the website.
- Learned the website development process of the spring boot framework.
- Used Decision tree model to help students planning courses based on their grades.
- Led the team to complete the development of the website.
- Completed the main part of the website code and deployed the website on the cloud server.

**Research on Vulnerability Analysis of Daxing International Airport System** — Tianjin, China
*Research Assistant,Advisor:Hongyu Yang,Civil Aviation University of China* — *09/2019 - 12/2019*

- Learned a set of criteria for evaluating vulnerability levels.
- Executed vulnerability management including identifying, classifying, remediating and mitigating bugs by calculating their important level.
- Learned the risk assessment by testing the website in Python.

**Emotional analysis of online shopping after-sales feedback based on Python** — Hefei, China
*Research Assistant,Advisor:Sihai Zhang,University of Science and Technology of China* — *06/2020 - 08/2020*

- Learned to use Python for data analysis and processing of big data.
- Analyzed and classified user feedback using the based NLP model.

- Used Python to automatically generate product feedback labels and classify products based on user feedback analysis.

**De Novo Macromolecular Complex Structure Prediction from CryoEm Maps** Boston, US

*Research Assistant,Advisor:Si Dong, University of Washington* *06/2023 - Current*

- Learned the application of CNN model in structural biology to predict protein structure.
- Done the background research and literature review.
- Optimized the performance of the diffusion model For CryoEm map in super Resolution.

## WORK EXPERIENCE

**STATE GRID Corporation of China** Xiamen, China

*Web Development Engineer* *06/2018 - 08/2018*

- Planned website development, converting mockups into usable web presence with HTML, JavaScript, AJAX, JSON and VUE coding.
- Created the demonstration of webpages and optimized the search function, identified and removed errors and maintained the functionality of the website.

**Zhongxin Network Information Co., Lt** Hefei, China

*Web Crawler Engineer* *06/2019 – 08/2019*

- Analyzed Advanced Persistent Threat attacks and wrote cyber threat intelligence reports.
- Extracted data from China National Vulnerability Database of Information Security in Python using Scrapy.
- Performed mathematical operations on arrays using python and summarized the features of computer viruses and malware.

## PROFESSIONAL PUBLICATIONS

Pengwei Sun, Yan Shi, Jiapeng Shi, **Yujie Sun**. (2019). Intelligent logistics robot. Science and Technology.CN, 65-1078/Z(2), 36-38.

**Yujie Sun**, Weijie Li, Luyin Cao, Yuhan Qin, Lewei Ai. (2020). Design and Implementation of a Management Analysis Platform for Secondary Colleges - Academic Affairs Management Module. Science and Information Technology, 033, 146-146.

**Yujie Sun**, Weijie Li, Luyin Cao. (2019). Implementation of a separated college management analysis system for Vue and Springboot Digital users, 025(052), 212.

**Yujie Sun**, Xia Yuyu, Jiang Laiwei, Zou Jiaxu, Xu Junyi, Sun Jimeng (2022) Design and Implementation of a Classroom Management System Based on Mobile Platform Technological Innovation and Application, 12 (30), 4

## SKILLS AND INTERESTS

**Programming Language**: Python, Java, R, C++, HTML/CSS, PHP
**Language**: Mandarin, English
**Interests**: Badminton, Reading, Music