

EDUCATION

University of XX

Master of Engineering, Electrical and Computer Engineering | CGPA: 9.5/10

XX, ON

January 2022 – Present

XX University

Bachelor of Network Engineering | GPA: 3.6/4.0

XX, China

September 2017 – June 2021

SKILLS

Programming Languages: Java, JavaScript, Python, C, MATLAB

Frontend: HTML, CSS, React, Redux, React Router, Material UI

Backend & Server: Spring Boot, Spring MVC, Express.js, MySQL, MyBatis, MongoDB, Linux, AWS

Data/AI: Matplotlib, Pandas, PyTorch, OpenCV

Development Tools: Git, Maven, Webpack, Postman, IntelliJ, PyCharm

Languages: Chinese (native), English (professional), German (B1)

PROJECTS

A Serious Instagram Clone | Spring Boot, Maven, MySQL + MyBatis, React.js, Redux, React-Router, Axios, AWS

Developed a full-fledged web application (10k+ lines of code, 40+ React components) that integrates most native Instagram functionalities, allowing users to register, upload and customize photos, explore various posts, and interact with other users in terms of like, save, comment, and messaging. [GitHub](#)

- Implemented a complex module for making new posts that can be called from any page, embedding Photoshop-like features like image resizing, cropping, applying filters, and adjusting photo parameters with pure-frontend solutions; users can also write captions and get location recommendations via the **Mapbox API**.
- Customized UI components, including the navigation bar, input boxes and sliders from scratch using **only CSS** with native-like smooth and authentic functionality.
- Utilized **Redux** extensively to manage complex states across different **React** components; event changes in the navbar, number of friends and comments are displayed to users **in real-time**.
- Created **50+ RESTful APIs** using **Spring Boot** following the **MVC** pattern, designed **10+ MySQL** tables and applied multi-table query practices widely to fetch a wide range of information from user recent follows to mutual friends.
- Deployed and established a **CI/CD** workflow using **AWS RDS, Elastic BeanStalk, and CodePipeline**.

Movie Memories | React.js, Node.js, Express.js, MongoDB + Mongoose, Material UI, Firebase, OAuth

Designed a **MERN** movie-sharing social web app with features of Posting, Authentication, Pagination, Search, Recommendation, and Comments.

- Implemented frontend using **React.js**, utilized **Material-UI** to create a fully responsive layout and user-friendly interface.
- Implemented backend server using **Express.js** based on RESTful API. Post details, images and authentication information are stored in **MongoDB** and **Firebase Storage**. Added Google Login with **OAuth 2.0** to offer additional auth options.

Social Network Risk Management | Pandas, Matplotlib, Jupyter Notebook

- Conducted graph-based analysis and visualization of the FilmTrust dataset, which has over 30,000 records, using **Networkx, Pandas and Matplotlib**.
- Generated Pseudo-users to simulate three classical shilling attacks, assessed shilling attack algorithms' performance under social recommender systems, using **Pandas, NumPy**.

EXPERIENCE

一个小公司

Nanjing, China

Software Developer Intern | Python

July 2021 – December 2021

Road Anomaly Detection Project

- Collaborated with the team to enhance the efficiency of detecting road obstacles from surveillance video streams.
- Reviewed over 10 research papers and coded a two-stage pipeline that helped **reduce the false alarm rate by 60%** by adding a post-processing unsupervised Resnet-50 module to the current industrial solution.

Scene Change Detection Project

- Built Python testing scripts for feature-point detecting algorithms using **OpenCV** and **Matplotlib**. Analyzed and visualized over 30 complex traffic scenarios.

CERTIFICATES

AWS Certified Cloud Practitioner

July 2022