Ruijia Xiong

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EDUCATION

Northeastern University - Khoury College of Computer Sciences   *01/2022 – 05/2024(Expected)*
Master of Science in Computer Science | GPA: 4.0/4.0
Courses: Data structure & Algorithms, Web development, Building Scalable Distributed Systems, Database

Shanghai University of Finance and Economics   *09/2012 – 07/2016*
Bachelor of Economics | GPA: 3.52/4.0

TECHNICAL SKILLS

Languages: Java, Python, C++, C, JavaScript, HTML, CSS
Frameworks: Node.js, Express, Spring Boot, Django, Flask, React, Vue, TensorFlow
Tools/Database: Maven, Git, Vim, Linux, Ubuntu, JUnit, MySQL, PostGreSQL, MongoDB, Axios, AWS

WORK EXPERIENCE

Research Assistant | *Engineering Lab at the Roux Institute*, Portland, ME   *05/2022 – 12/2022*
- Built machine learning pipelines using scikit-learn models to evaluate surface roughness of additive manufactured 3D printing models
- Developed engines to compare model accuracy and implemented pipelines to analyze feature importance in Laser Powder Bed Fusion process
- Analyzed model data and boosted laser printed metal surface roughness by 15% by adjusting laser printing angles

Web Developer Intern | *T.M. Herbal Studio*, Shanghai, China   05/2022 – 08/2022
- Redesigned the web UI using React framework and implemented React hooks within components; Simplified state management with Redux
- Coordinated with marketing team for responsive and interactive campaign layouts on web
- Developed an internal dashboard showing monthly transactions and sales details using Material-UI

Software Engineer / Operations Analyst | *West China Medical Center*, Chengdu, China   09/2019 – 12/2021
- Managed a team to update the UI of the Hospital Information Systems(HIS) using React.js, promoted the data extraction process for Operations Department and reduced 90% manual work
- Developed the internal Information System using Spring Boot; Built the internal payment management systems by integrating WeChat pay and Alipay
- Held cross-department tech workshops on topics of HIS functions, Health Care Reform and UI design
- Defined the key indicators and redesigned the data extraction and analysis schema with the Operations Team

PROJECTS

Aircnc Website(Bootstrap, Node.js, MongoDB) *https://github.com/Raexiong/Aircnc*   *08/2022 – 12/2022*
- Built dynamic website for users to explore various house rooms and campsites available nearby
- Constructed frontend with **Bootstrap** to streamline the development process and improve user experience
- Developed backend framework with **Node.js** and **Express** to handle HTTP requests and responses
- Set up **MongoDB** to support data manipulation using CRUD statements for user and campsite information
- Utilized **Passport library** for user authorization and **Mapbox API** for marking and displaying campsite geo-location

Friends Website(React.js, Spring Boot, MySQL)   *07/2022 – 09/2022*
- Built social media website where users can connect with friends and share posts within their social circle
- Implemented frontend using **Next.js** framework, improved the UI/UX flow with interactive **React/Next components**, and promoted website layout using **Tailwind CSS**
- Integrated **NextAuth.js** session management for user authentication and used **React Redux** for state management

Real-Time Face Mask Detection App(TensorFlow, SSD MobileNet)   *01/2022 – 02/2022*
- Built GUI to detect whether a person wears mask or not by using Google TensorFlow
- Prepared image labels using **labelImg** and customized object detection with **SSD MobileNet**
- Achieved real time detection using **OpenCV** and a **webcam,** reached 95% accuracy with green cloth background