RUICHAO TANG

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EDUCATION

Northeastern University – Oakland Campus, Oakland, CA — September 2023 - Present
***Master of Science in Computer Science Candidate**, GPA: 4.0 / 4.0* — *Expected Graduation Date: May 2026*
Relevant Coursework: Artificial Intelligence | Object-Oriented Design | Web Development | AWS Cloud Computing | Algorithms

University of Electronic Science & Technology of China, Chengdu, China — September 2016 - June 2020
***Bachelor of Science in Electronic Information Science and Technology**, GPA: 3.7 / 4.0*
Relevant Coursework: Advanced Programming Language Design | Digital Circuit and Logic Design

SKILLS

Programming Languages: C, Python, Java, JavaScript
WebDev Frameworks/tools: HTML**,** CSS, Node.js, Express, React, TailwindCSS, Bootstrap5, MongoDB, AWS(Amazon Web Services), Figma
AI Frameworks: scikit-learn, TensorFlow, PyTorch
Natural Languages: English, Mandarin

PROJECTS

Nest Land - Real Estate Web Application (MERN + TailwindCSS) — August 2024 – September 2024
Live Project: https://mern-realestate-rpou.onrender.com
Github repository: https://github.com/RuichaoTang/MERN-realEstate
- Deployed a real-estate platform using the MERN stack (MongoDB, Express, React, Node.js), hosted on Render
- Enhanced security with advanced authentication systems, leveraging JWT, Firebase, Redux and Google OAuth for user access
- Developed comprehensive user management features and full CRUD operations for listing posts, including search and image upload functionality (using Firebase Storage).
- Developed a responsive TailwindCSS UI with live updates for listing interactions.

Aesthetic Medical Platform (MERN + TailwindCSS) — March 2025
Live Project: https://medicalaestheticsplatform.onrender.com/
Github repository: https://github.com/RuichaoTang/MedicalAestheticsPlatform
- Developed a MERN-stack web application, with secured use login (Http only cookies), and responsive UI.
- Created wireframes in Figma; selected a color palette and matching typography following basic design principles
- Conducted user task analysis, implemented accessibility best practices, and performed video/paper usability survey

AWS Microservices & CI/CD Pipeline Development — April 2025
Certificate: https://www.credly.com/badges/3f4c7a8f-0026-49ca-8ccd-6393354e1786/public_url
- Designed a scalable microservices architecture on AWS with a cost estimate and migrated a legacy app to it.
- Deployed containerized microservices to ECS with ECR integration and configured ALB with multiple target groups.
- Implemented end-to-end CI/CD pipelines using CodePipeline and CodeDeploy with automated blue/green deployments.
- Performed updates to microservices, triggered CI/CD workflows, and validated auto-scaling functionality.

PROFESSIONAL & RESEARCH EXP.

Ultra-Band Electromagnetism Lab | UESTC (P.I. Jiuxun Sun) — September 2020 – June 2023
Research Assistant & Grad-Student — Chengdu, China
- Built a Residual Convolutional Neural Network (ResNet) using tensorflow keras to pre-screen ultra-wideband resource-sensing radar images
- Conducted theoretical research on the properties of electromagnetic waves propagating in time-varying and dispersive media, and optimized the formula
- Applied the formula and calculated how microwave propagate in time-varying and dispersive media using MATLAB

Chengdu Zhongdian Jinjiang Information Industry Co., Ltd — September 2021– November 2021
Intern — Chengdu, China
- Used CST Studio Suite to simulate the thermal/electrical/physical responses of civil drones to specific electromagnetic fields, and assisted in research on the mechanisms by which electromagnetic waves damage typical civil drones