Eric Zhang

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SKILLS

Technical Skills: JavaScript, TypeScript, Python, Java, C/C++, C#, SQL, HTML, CSS, Data Structures and Algorithms, Object Oriented Programming

Tools and Frameworks: Git, React.js, Node.js, Flask, Docker, AWS, MongoDB, Redis, Firebase, Bootstrap, Jest, Figma

EXPERIENCE

Software Developer — May. 2023 - August. 2023
Cynorix Inc. ⤴ — *Waterloo, ON*
- Collaborated closely with a dedicated team member to create a secure authentication and authorization framework by integrating Cynorix's multi-factor authentication product with the OAuth 2.0 protocol
- Developed and maintained a robust Desktop Application using the Electron framework that can retrieve SSIDs and geolocation data to enable multi-factor authentication
- Integrated Firebase Cloud Messaging to enhance real-time updates and reduce client authentication time by 25%
- Significantly bolstered security in three Cynorix products by implementing verification software that effectively blocks malicious requests
- Created API endpoints to handle multi-factor authentication with Twilio and enable client payment using Stripe
- Leveraged Firebase, MongoDB and Redis to efficiently manage and retrieve client information

Full-Stack Web Developer & Machine Learning Engineer — Dec. 2022 - Present
Desa Analytics ⤴ — *Toronto, ON*
- Designed a web application with React.js and Node.js that seamlessly integrates Amazon S3 and AWS SageMaker for predictive analysis, enabling clients to improve business strategies and increase profitability
- Dockerized a React.js, Node.js and MySQL stack into a multi-container application optimized for AWS deployment
- Devised tests using the Jest JavaScript framework to facilitate test-driven development
- Utilized advanced machine learning models, including XGBoost, LightGBM and Random Forest, to extract actionable insights from client data
- Applied ensemble methods such as Bagging, Boosting and Stacking to improve model accuracy by over 15%

PROJECTS

ChatPulse ⤴ | *React.js + Flask*
- Designed and developed an engaging user interface for a real-time chat application using React.js
- Utilized Socket.io in a Flask back-end to establish real-time communication channels, providing users with a seamless chatting experience
- Integrated MongoDB with PyMongo to create a robust data storage system for storing and managing users

Personal Website ⤴ | *React.js*
- Created a website using the React JavaScript library to showcase technical skills and projects
- Utilized functional components and React hooks to create various animations
- Applied elements of responsive web design to increase website accessibility

Bullet Heaven Game ⤴ | *Java*
- Developed a 2D scrolling shooter game using Java object-oriented programming
- Created a graphical user interface with the Java Swing toolkit to create appealing visuals

EDUCATION

University of Waterloo — Waterloo, ON
Candidate for Bachelor of Computer Science, Honours, Co-operative Program — *Sep. 2022 - Apr. 2027*
- GPA: 4.0
- Relevant Courses: Designing Functional Programs, Elementary Algorithm Design and Data Abstraction, currently taking Logic and Computation, and Object-Oriented Software Development

ACHIEVEMENTS

3x Canadian National Math Team Competitor — 2020, 2021, 2022
Canadian Mathematical Olympiad (CMO) with a score of 13 in 2021