Sahrfear Macarthy

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Full-Stack Developer

With over a year of academic project-based experience, I specialize in JavaScript, TypeScript, React, and Angular. Additionally, I bring 1.5 years of experience as an Associate Test Engineer in the semiconductor industry. My expertise covers both front-end and back-end development, utilizing best practices in UI design and agile methodologies. I am skilled at problem-solving, debugging, and continuous learning, and I thrive in dynamic and innovative environments.

Code Version Control • Build Tools • RESTful APIs Development • NoSQL Database Development • Object-Oriented Programming (OOP) • Problem-solving • Debugging • Communication Skills • Team Collaboration • Continuous Learning • Agile Methodologies

Languages: JavaScript, TypeScript, SQL

Frontend Technologies: React, React Native, HTML, CSS, Angular, Bootstrap 5, Material UI

Backend Technologies: Node.js, Express, RESTful APIs, JSON Server

Databases: RDBMS (MySQL), NoSQL (MongoDB).

Design Patterns: Singleton, Observer Pattern, Prototype, Factory, Decorator. **Development Tools:** Webpack, Babel, Git, npm, Visual Studio Code, Sublime Text **Testing & Automation:** Unit and integration testing, Jest, Mocha, CI/CD pipelines.

Methodologies: Agile, SCRUM, Test-Driven Development (TDD)

Languages in Progress: C++, Python

PROFESSIONAL EXPERIENCE

Associate Test Engineer

May 2022 - Aug 2023

Onto Innovation Company | Milpitas, CA

- Performed robot teaching for semiconductor wafers.
- Collaborate with Engineers to develop effective test procedures and standards for quality assurance.
- Implemented Development Standards to ensure consistent testing procedures and quality assurance.

Technologies Used: N 2000 Software, N 2000 Config Software, COMET Software

ACADEMIC PROJECTS

Medication Reviews/Side-Effects application

Jun 2024 - Jul 2024

- Designed a responsive frontend using Angular, TypeScript, and Angular Material UI.
- Created a backend with Node is, Express for RESTful APIs, and MongoDB for data storage and retrieval
- Implemented secure login with JSON Web Tokens (JWT) and ensured API stability through lazy loading and role-based access control.

Technologies Used: Angular, JavaScript, TypeScript, Node.js, Express JS, MongoDB, Services, HTTP Client, JWT

Integrated Library Management System

May 2024 - Jun 2024

- Managed centralized data with JSON-Server and applied the Factory design pattern for user account management.
- Engaged in open development practices, offering detailed feedback and collaboration to improve project outcomes and team efficiency.
- Executed Create, Read, Update, Delete (CRUD) operations and implemented secure user authentication.

Technologies Used: React Native, Axios, JavaScript, TypeScript, Node.js, JSON Server, Context API

Music Website Apr 2024 - May 2024

• Created a responsive frontend with React, TypeScript, and Bootstrap, leading to enhanced user engagement.

- Developed a backend with Express and JSON Server, optimizing performance using React hooks and state management.
- Utilized React hooks (Context API, useEffect, useMemo) and state management to optimize the application's performance.

Technologies Used: React JS, Axios, JavaScript, TypeScript, Node.js, Express JS, JSON Server, Context API

REST API for an Educational Platform

Nov 2023 - Dec 2024

- Managed data with MongoDB and implemented secure JWT authentication.
- Developed user schemas and models with Mongoose, and tested HTTP requests using Postman and Thunder Client
- Created and managed npm packages for a REST API, improving modularity and functionality in the Node.js ecosystem.

Technologies Used: JavaScript, TypeScript, Node.js, Postman, MongoDB

Amazon Webpage Clone

Dec 2023- Jan 2024

- Recreated core features of the Amazon website, such as the homepage layout, product listings, and search functionality, ensuring a user-friendly experience
- Implemented shopping cart management and checkout processes, providing a complete e-commerce experience.
- Utilized HTML, CSS, and Bootstrap to design and develop a responsive and visually appealing web page clone

Technologies Used: HTML, CSS, Bootstrap

EDUCATION

Master's in software development (GPA: 3.85/4.0)

Maharishi International University, Fairfield, Iowa

<u>Key Courses</u>: Front-End Development: JavaScript, TypeScript, Algorithms, React, React Native, Angular, HTML, CSS. BackEnd Development: Node.js, MongoDB, APIs-Development

Bachelor's degree in physics

Fourah Bay College, Freetown, Sierra Leone (2019)