John Dufresne
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PROFESSIONAL SUMMARY

Versatile and results-driven **Full Stack Developer** with a strong emphasis on frontend development and a passion for building responsive, user-centric web and mobile applications. Skilled in modern JavaScript frameworks such as **React**, **React Native**, and **Next.js**, with experience creating intuitive UI components, managing state, and integrating with backend services. Proven ability to deliver scalable, maintainable solutions across the **full development lifecycle** — from design and implementation to deployment and optimization. Experienced with backend technologies including **Node.js**, **FastAPI**, and **PostgreSQL**. Familiar with **CI/CD pipelines**, **cloud infrastructure (AWS)**, and **automated testing frameworks**, enabling reliable and efficient software delivery. Thrives in collaborative **Agile** environments and is committed to continuous improvement and clean, scalable code.

EDUCATION

University of Central Florida — **Orlando, FL**
Bachelor of Science, Computer Science, GPA: 3.32 — September 2021- December 2024

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, HTML, CSS, Python, C, C++, Java, Haskell

Frameworks & Libraries: React, React Native, Node.js, Next.js, TailwindCSS, FastAPI, Jest, Appium

DevOps & Tools: AWS, Docker, Jenkins, GitHub, Postman, PostgreSQL, pgAdmin, Figma

Methodologies: Agile (Scrum), CI/CD, Test Automation, Cloud Deployments

PROFESSIONAL EXPERIENCE

Full Stack Developer — **May 2025 – Present**
Axis LLC — Contract

- **Architected** a Next.js web application for administrative management of sponsor (advertiser) content across the Axis mobile platform
- **Implemented** React Context state management orchestrating complex operations including sponsor creation, media processing, and real-time database synchronization.
- **Designed** secure authentication using Firebase Google OAuth with HTTP-only cookies and Next.js middleware
- **Built** a media management pipeline with client-side validation, AWS S3 integration, and automated database synchronization
- **Developed** proxy API architecture interfacing with Swift Vapor backend services
- **Established** responsive Tailwind CSS components with comprehensive form validation, error handling, and cross-platform user experience.

Full Stack Developer | Team Lead: DevOps & QA — **February 2024 – January 2025**
Army Reserve Mercury — UCF Senior Design Capstone

- **Led** a 5-person development team building a cross-platform web and mobile application, focusing on DevOps automation, bug fixing and system reliability.
- **Managed** Agile Scrum processes including sprint planning and daily standups to deliver project milestones on schedule.
- **Served** as technical liaison with stakeholders, translating requirements into technical specifications and delivery roadmaps.
- **Established** automated testing with Jest and Appium, achieving 40% reduction in post-release defects.
- **Expanded** CI/CD pipeline operations to include unit, integration and functional testing, ensuring code quality and minimizing development issues.
- **Developed** comprehensive release documentation, versioning strategies, and deployment processes to support seamless product rollouts and minimize operational risk.

PROJECTS

Budget Buddy — **January 2025 – March 2025**

- **Architected** a mobile personal finance application using React-Native with an intuitive user interface and hierarchical state management system that efficiently tracks budget sections, items, and transactions.
- **Utilized** PostgreSQL along with Python and FastAPI backend to persist user budget data securely while maintaining high performance.
- **Implemented** JWT and data hashing to protect sensitive financial information and provide a safe and personalized user experience.

Parallel Sudoku Solver — **January 2024 – April 2024**

- **Developed** a Java-based parallel processing solution for solving Sudoku puzzles using the ForkJoinPool framework, demonstrating practical application of concurrent programming principles and multithreading optimization..
- **Implemented** both a sequential and parallelized backtracking algorithm, analyzing performance metrics across varying puzzle complexities that revealed a 7% efficiency improvement for complex puzzles utilizing the parallelized backtracking approach.
- **Designed** an adaptive threading system with dynamic depth control that intelligently balances computational resources based on problem complexity, showcasing both algorithm optimization skills and system resource management.