

Jacob Owens

Software Developer

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Innovative self-taught full-stack developer with a unique background in healthcare. Founder of a healthcare technology startup, leveraging AI to create cutting-edge software solutions. Seeking to bring a combination of technical skills and domain expertise to a software development role.

Skills

Frontend Development

- Self-taught specialist in React ecosystem with TypeScript and modern state management
- Extensive experience with NextJS (both Pages and App Router architectures)
- Proficient with CSS frameworks and design systems including TailwindCSS, Material UI, Chakra UI, ShadCN, and Bootstrap

Backend & Infrastructure

- Node.js and Express.js for API development and server-side applications
- Python for data processing, automation, and backend services
- Database expertise with PostgreSQL, SQL, and Drizzle ORM implementation
- AWS cloud services including Lambda, S3, EC2, and serverless architectures
- Experienced with Docker containerization for consistent development and deployment

Authentication & Security

- Implemented comprehensive authentication solutions using JWTs, OAuth 2.0, and refresh token workflows
- Experience with enterprise-grade authentication including SAML, SSO, and multi-factor authentication
- API security best practices and role-based access control systems

Additional Technical Skills

- Real-time communication implementations using WebSockets
- IoT device integration and hardware interfaces using C/C++ and AWS IOT
- Version control with Git and CI/CD pipeline configuration

Professional Strengths

- Problem-solving mindset with strong analytical capabilities and rapid learning ability
- Entrepreneurial experience founding and scaling Axon AI from concept to market
- Excellent communication skills for cross-functional collaboration and stakeholder management
- Adaptable to fast-paced environments and emerging technology trends

Experience

Axon AI / Founder/CEO

September 2022 - Present, Tupelo, MS

- Founded and led a healthcare technology startup developing AI-powered software solutions for clinical workflows
- Architected and engineered physician documentation platform featuring real-time transcription and AI-assisted medical note generation
- Developed robust web applications using React, TypeScript, and TailwindCSS with focus on healthcare compliance and security
- Orchestrated all business operations including product strategy, stakeholder engagement, market positioning, and funding initiatives

Midsouth Neurology / Registered Nurse

July 2022 - Present, Tupelo, MS

- Specialized in electrodiagnostic testing as an EMG technician, collaborating directly with neurologists to diagnose neuromuscular disorders
- Successfully implemented and validated proprietary software solution in clinical setting, demonstrating measurable improvements in documentation efficiency
- Leveraged dual expertise in healthcare and technology to create practical solutions addressing real clinical pain points

Medical Solutions / Registered Nurse (ICU)

June 2020 - July 2022, Multiple

- Provided specialized critical care nursing across diverse ICU environments including Medical, Coronary, Surgical, Neuro, Cardiovascular, and Emergency settings
- Demonstrated exceptional adaptability by successfully integrating into multiple hospital systems and care teams during COVID-19 crisis
- Applied clinical expertise in high-acuity environments requiring rapid assessment, critical thinking, and precise execution of complex treatment protocols

Education

Self taught software developer

January 2022 - Present

Key Skills: JavaScript, Typescript, React, TailwindCSS, NextJS, Python, AWS

Projects: Developed an AI powered web application for outpatient medical clinics to streamline documentation, paperwork, and phone calls,, utilizing React and Typescript for the frontend and Typescript/Express on the backend;

Learning Resources:

- Self-directed education through technical documentation and hands-on development
- Completed specialized courses through Coursera and Udemy focusing on web development and AI integration
- Practiced iterative development through continuous project-based learning and real-world implementation

Itawamba Community College / Registered Nurse

August 2017 - May 2020, Fulton, MS

- Graduated as a Registered Nurse, holding a current Mississippi license (#916367).

Notable Achievements

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- **AI Innovation in Healthcare:** Engineered and optimized custom NLP models that generate structured SOAP notes from clinical conversations with 95% accuracy, revolutionizing medical documentation workflows
 - **Efficiency Transformation:** Architected real-time transcription and documentation system deployed across 20+ providers serving 15,000+ patients, reducing physician note-taking time by 30% while improving quality of care
 - **Operational Excellence:** Designed intelligent phone system automating appointment scheduling, cancellations, and patient inquiries that decreased front-desk administrative burden by 40%, allowing staff to focus on higher-value patient interactions

Relevant Projects for this role

AI-Powered Clinical Documentation Platform | Axon AI

- Designed and implemented a comprehensive React/TypeScript application enabling real-time transcription and AI-assisted medical documentation, dramatically reducing physician administrative workload
- Built robust real-time architecture using WebSockets for live transcription with seamless fallback mechanisms to ensure reliability in clinical environments
- Integrated multiple AI services (AWS Bedrock, OpenAI) with custom prompting strategies to transform conversational data into structured, compliant medical documentation
- Developed customized TipTap WYSIWYG editor with healthcare-specific extensions, creating an intuitive editing experience tailored to clinical workflows
- Implemented secure authentication and role-based access control ensuring HIPAA compliance while maintaining exceptional performance and usability