Mark Robertson | Software Engineer
USA | +(1) 732-895-3439

Detail-oriented and goal-driven, with a strong foundation in software development and a passion for web applications, AI-driven solutions, and data-driven technologies. With extensive experience in finance and securities trading, I bring a unique perspective to building intuitive, user-centric applications that enhance business processes. I thrive in dynamic environments, collaborating with cross-functional teams and stakeholders to align technology solutions with business goals. I enjoy working with others to optimize user experiences and leverage AI and automation. Eager to apply my problem-solving skills, entrepreneurial mindset, adaptability, and analytical thinking to innovative projects, I am committed to continuous learning and growing as a developer.

TECHNICAL SKILLS

Project Management	Notion, Asana, Trello	**Methodology**	SCRUM Method
Programming Languages	JavaScript (ES5/ES6), HTML5, CSS3	**Libraries**	React, Bootstrap, Tailwind
Front End	React.js, Tailwind CSS, Bootstrap, Axio	**Developer Tools**	Git, npm, GitHub, VScode, Postman
Back End	Express.js, Node.js, Restful API's, CORS	**APIs**	OpenAI, Google Maps, NYC Open Data
Database	PostgreSQL, ElephantSQL	**Test/Deploy**	Jest, Cypress, Netlify, Render
Design Tools	Trello, Asana, Figma	**Cloud Services**	FireBase, Google Cloud Services

SOFTWARE ENGINEERING APPLICATIONS

TimeCard App   [App Link]
Personal project – Project Owner/Originator.

Synopsis: A timecard application actively used by We Care Adult Care, Inc., replacing manual paper-based tracking with a streamlined digital solution. Employees can now log work hours digitally, while administrators generate reports, print timesheets, and export data to CSV for seamless Paychex payroll integration.

Key Contributions & Impact:
- Autonomously developed a timecard app that calculates daily and biweekly total hours based on a structured two-week cycle.
- Integrated Firebase authentication to ensure secure role-based access, allowing employees to view only their data while admins oversee all timecards.
- Improved reporting efficiency by enabling one-click CSV export, and automating payroll reporting.
- Optimized UI/UX with a React-based calendar, ensuring intuitive and seamless timecard creation.

Tech Stack: **Frontend:** JavaScript, React.js, HTML5, CSS, BootStrap.   **Backend:** NodeJS, Express.js, REST APIs.
Database: PostgreSQL, Neon.   **Deployment & Hosting:** Netlify, Render
Cloud Services: Firebase Authentication

City Whisperer   [App Proposal] | [Front end Repo] | [Back end Repo] | [App Link]
Group Collaboration – Project Owner/Originator.

Synopsis: City Whisperer is an AI-powered self-guided tour generator that tailors personalized walking tours for users in any city, based on duration, difficulty, and theme preferences. This project combines AI, automation, and geolocation services to deliver a seamless and immersive travel experience. with narrated points of interest commentary.

Key Contributions & Impact:
- Spearheaded the development of a dynamic React app, integrating OpenAI API for AI-generated routes and points of interest.
- Optimized system performance with async programming, concurrency mechanisms, and retry strategies for reliability.
- Enhanced security by implementing a sanitization function to mitigate SQL injection risks.
- Designed an intuitive UI/UX using Tailwind CSS, making the app visually appealing and easy to navigate.

Tech Stack: **Frontend:** JavaScript, React.js, Tailwind CSS.   **Backend:** NodeJS, Express.js, REST APIs.
APIs: OpenAI, Google Maps, Unsplash.   **Database:** PostgreSQL, ElephantSQL.
Deployment & Hosting: Netlify, Render.   **Cloud Services:** Google Cloud Services
Design & Prototyping: Figma.   **Project Management:** Trello.
Methodology: SCRUM Method.

Access & Learn (*Award-winning Hackathon Project – Best Storytelling*)   Repo | App Link
Group Collaboration – Pair Programming

Synopsis: Built to address educational accessibility, Access & Learn is a React-based platform designed to support individuals with dyslexia and literacy challenges. The app provides text-to-speech features, a dyslexia test, and real-time literacy program locations via NYC Open Data.

Key Contributions & Impact:
- Developed a percentage-based dyslexia diagnostic test for accurate user assessment.
- Integrated Google Maps API & NYC Open Data, providing real-time access to local literacy programs.
- Enhanced accessibility by implementing text-to-speech functionality, ensuring usability for individuals with literacy challenges.
- Designed a React-based Jigsaw puzzle as an engaging interactive entry point.

Tech Stack: **Frontend:** React.js, JavaScript, HTML5, CSS.   **Backend:** NodeJS, Express.js., REST APIs.
                    APIs: NYC Open Data, Google Maps,   **Deployment & Hosting:** Netlify.
                    Cloud Services: Google Cloud Services   **Design & Prototyping:** Figma.
                    Project Management: Trello.   **Methodology:** SCRUM Method.

Other Projects:

My Luxury Rides https://myluxuryrides.netlify.app	**YouTube Clone** https://beautiful-selkie.netlify.app
Student Dashboard App https://mystudent-dashboard.netlify.app	**Weather App** https://marks-weather-app.netlify.app

PROFESSIONAL EXPERIENCE

Part-Time Driver | Software Developer | We Care Adult Care, Inc.   June 2023 - Feb 2025
- Autonomously developed and deployed a full-stack timecard application, replacing a manual pen-and-paper system.
- Built the front end with JavaScript and React, and the back end with Express and SQL, using Neon for database management.
- Successfully launched the app via Netlify and render, and it is now actively used by staff.

Founder/Principal of Securities Trading | St. Albans Capital, LLC   March 1996 - Dec 2022
- Directed a team of five traders, managing daily transactions of $100M+ in high-yield bonds, equities, and U.S. Treasuries.
- Utilized Bloomberg Terminal to analyze market inefficiencies, price discrepancies, and liquidity trends, optimizing trading decisions.
- Provided transparent market reports to four high-net-worth clients, ensuring trust through strategic decision-making and effective communication.

CEO | Phaz Music Corp. (**Best of CES 2015, by Techlicious · Jan 2015 for P2 headphones.**)   June 2017 - Aug 2018
- Appointed CEO to raise capital and advance product development. Finalized manufacturing in Shenzhen and enhanced headphone features, lithium battery production, and configuration in Hong Kong
- Initially secured $5 million in financing by onboarding a CPA to assist in creating an offering memorandum.
- Spearheaded negotiations and crafting agreements, fostering crucial partnerships with distributors and an independent sales team.

Managing Member (1 of 3) | Investment Club 101, LLC (Black Box Trading)   Feb 2006 - July 2012
- Formed a dynamic team to develop and fund a black box equity trading system, incorporating a core AI engine.
- Secured $100,000 in seed financing dedicated to trading capital so the trading system could be taken live.
- Successfully launched and managed the Beta system, hosted by Genesis Securities.

EDUCATION

Pursuit.org | Advanced Software Engineering Immersive Program
        AWARD Best Storytelling, Pursuit Hackathon for the class of 9.3 & 9.4   Project: accessandlearn.netlify.app

Rutgers the State University of NJ - School of Business | BS in Marketing

University of Hertfordshire, UK | BA in Applied Art

PATENTS

A device for alerting the wearer of jewelry, that a precious stone is loose within its setting.
US 6928834 B2 · Issued Aug 16, 2005   https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/6928834