Howard Kier

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WEB DEVELOPER

Experienced Full Stack and Backend Developer with a focus on Node.js, TypeScript, PostgreSQL, and Docker. Skilled in building secure, scalable systems and aligning technology with business strategy, supported by an MBA. Adept at collaborating in startup and agile environments, delivering high-quality backend solutions, and contributing to technical education content.

NOTABLE ACCOMPLISHMENTS

- Designed, developed and implemented a website for CompTIA's web security classes, using React, JavaScript, Vite, Express, and PostgreSQL. This project provided a hands-on learning experience showcasing various vulnerabilities in a safe environment for CompTIA's Web Security Penetration Testing courses.
- Created curriculum content for CompTIA's new Web Development course, including text, video scripts, and labs, while providing actionable recommendations to enhance the proposed curriculum.
- As a ChiHack Night volunteer, provided code reviews, writing, testing, and feature development for an open-source transit tracking application, Ghostbuses.com. Integrated real-time data processing and optimized server side logic.
- Coded and tested various components for decarbonizemystate.com, contributing to the site's successful deployment and user engagement.
- Wrote "Cyber Scams and You," volumes 1 and 2 published by Bookboon.com.
- Assessed financial performance and streamlined business operations by creating budgets, balance sheets, cash flows, and P&L statements, while analyzing current and future needs, systems, and processes to reduce costs and improve efficiency.

TECHNICAL/COMPUTER SKILLS

Web Technologies:
- Front-End Development: React, Redux, JavaScript, TypeScript, HTML, CSS, jQuery, Socket.io, Vite
- Back-End Development: Node.js, Express, Sequelize, RESTful APIs
- Databases: Postgres, MySQL
- Version Control: GitHub
- Cloud & Infrastructure: AWS, Apache, Docker
- Web Security: OWASP, Secure Development Lifecycle, Penetration Testing

Other Skills: MS Office (Word, Excel, PowerPoint, Access), SDLC, System Conversion Strategies, Project Management and Planning, Financial Analysis, Process Improvement and Testing Processes

CURRENT PROJECTS

- Using RESTful APIs, Node.js, PostgreSQL and TypeScript to create a scalable patient medicine management system to remind patients to take their medications, call the pharmacy for refills and even schedule doctors' appointments when required.
- Updating "Cyber Scams and You" to include emerging AI scams and techniques.

PROFESSIONAL EXPERIENCE and ACCOMPLISHMENTS

FREELANCE WEB DEVELOPER, Schaumburg, IL.   2018-2025
Consultant/Web Developer
Partnered with clients to determine project requirements and delivered high-quality results on-time and within budget.
- CompTIA Web Security Training Lab Development
    - Designed and implemented a website to demonstrate and permit students to practice web security concepts in a safe environment for CompTIA's Web Security Penetration Testing courses.
    - Utilized modern technologies, including React, JavaScript, Vite, Express, and PostgreSQL, to build the site.
    - Incorporated key vulnerabilities, such as Cross-Site Scripting (XSS), File Inclusion, and SQL Injection, to teach students practical vulnerability detection and exploitation techniques.
    - Delivered a fully functional training tool that enhanced students' understanding of web application vulnerabilities and ethical hacking methodologies.
- CompTIA Web Development Curriculum Development
    - Created comprehensive course materials for a new Web Development class, including text content, video scripts, and interactive lab exercises.
    - Evaluated and provided actionable recommendations to enhance the proposed curriculum, aligning it with current industry standards and learner needs.
    - Collaborated with subject matter experts to ensure technical accuracy and engaging delivery of educational content.

- ChiHack Night Volunteer
    - Provided code reviews, writing, testing, and feature development for an open-source transit tracking application, Ghostbuses.com. Integrated real-time data processing and optimized server-side logic.
    - Coded and tested various components for decarbonizemystate.com, contributing to the site's successful deployment and user engagement.
    - Collaboratively, created user interfaces for the Chicago Doula project. Observed and interviewed test subjects as they exercised a front-end prototype of the user interface.
    - Designed data architectures tailored to each project's specific data requirements.
- Updated and migrated 2 websites for the Friends of Wilderness Road from an old HTML based website to a content management system (WIX) which allows the client to regularly update website content themselves rather than a developer.
- Developed stevenrosenblum.com to support a local candidate's campaign for local Board of Education.
- Supported the Chicago JavaScript monthly meetup by developing and delivering 30–45-minute technical talks. Recent topics have included "Putting Prop Drilling in Context" and "Legal Development: Basic Legal Information for the Developer"

EDUCATION and TRAINING

MBA, Southern Methodist University, Dallas, TX. Beta Gamma Sigma honor society member
MS, Computer Engineering, Syracuse University, Syracuse, NY.
BS, Computer Engineering, Syracuse University, Syracuse, NY.
Approved Business Instructor, Professional Photographers of America, Atlanta, GA.

VOLUNTEER ACTIVITIES

CHIHACK NIGHT, Chicago, IL.	2018-Current
BOY SCOUTS/CUB SCOUTS, Schaumburg, IL.	2009-Current
SCHAUMBURG HIGH SCHOOL VERY INTERESTED PARENTS ORGANIZATION, Schaumburg, IL.	2014-2024
SCHAUMBURG HIGH SCHOOL STUDENT BAND PARENTS BOOSTERS, Schaumburg, IL.	2017-2021