Sagar Pathak

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EDUCATION

University of Memphis   Memphis, TN

MS in Computer Science (GPA: 3.98/4.0) **[Full Ride Scholarship**]

- **Relevant Coursework:** Software Engineering, UI/UX, Machine Learning, Algorithms, Artificial Intelligence, Natural Language Processing, Distributed Systems, Human-Computer Interface

EMPLOYMENT

Graduate Research and Teaching Assistant   **Cybersecurity Lab (UofM)**   **Jan 2022 - Jul 2024**

- Architected and deployed web and mobile applications for the Multi-User Access Control research initiative utilizing React, React Native, and Express.js, assuring all research requirements were met.
- Improved overall accessibility and educational effectiveness by developing and managing a cyber education web application for the CTG project, facilitating course testing and auditing, and ensuring high-quality educational content.
- Developed and delivered lectures and interactive exercises on secure web development to undergraduate students, strengthening their understanding of website security vulnerabilities and fostering a better grasp of secure coding practices.

Co-founder and Senior Software Engineer   **Inspiring Lab**   **May 2020 - Aug 2021**

- Led front-end development for RTVTR (Real-Time Vehicle Tracking and Recognition) system by implementing user interfaces with React, Redux, and MaterialUI, contributing to the project winning the AI Expo 2019.
- Designed and developed the system architecture for a web-based logistic management application, improving logistics processes by 30%, by employing a micro-frontend approach.
- Contributed to projects using various programming languages and frameworks, and implemented CI/CD pipelines using Jenkins, reducing deployment times by 40%.

Principal Software Engineer   **Zakipoint Health, Inc.**   **Jul 2018 - Apr 2020**

- Accomplished 40% reduction in page load speeds by revamping monolithic web applications using modern front-end technologies such as Next.js and Redux, and applying best practices for developer experience (DX), user experience (UX), and accessibility.
- Successfully leveraged D3 and Chart.js to streamline data processing and visualization, resulting in the rapid development and deployment of a highly effective system for analyzing and presenting complex datasets.
- Achieved a 25% reduction in project development time by implementing CI/CD systems using Jenkins and version control systems using Git, ensuring code quality and accuracy, streamlining development projects, and enhancing testing processes.
- Architected and deployed scalable web applications using Next.js, Express.js, React, and Vue, enhancing system performance by 30% while supporting 5000+ concurrent users.
- Executed on-time and on-budget project delivery by effectively communicating timelines, progress, and objectives while practicing Scrum Agile methodologies and collaborating with cross-functional teams.

Software Engineer   **Verisk Analytics, Inc.**   **Jan 2015 - Jun 2018**

- Improved the process of the Wallet Linkage Project, a database processing project for secure cards, by 87% by developing custom utility scripts and using Microsoft SSIS packages, resulting in receiving a prestigious award for process optimization.
- Developed Verisk Health's in-house software, surpassing client expectations by delivering a high-performing solution that met all functionality requirements within the specified timeline, leading to increased client satisfaction and successful software adoption.
- Efficiently managed database operations processes, ensuring data integrity, security, and availability while troubleshooting and resolving issues as needed.
- Mentored and advised new interns and trainees, fostering a collaborative and supportive learning environment while imparting best practices and technical expertise.

Projects

- Designed and developed multi-tier web application for BrainCast.ai using Next.js, MaterialUI, Express, and PostgreSQL stack.
- RiskModeler web application risk-based contracts for DocNemo.

SKILLS

Front-End: React, Next.js, MaterialUI, Redux, Storybook, Jest, D3, gRPC-web, JavaScript, TypeScript, Webpack, RsBuild, Django, Vite

Back-End: Express.js, Rails, Grails, Python, Java

Databases: MySQL, PostgreSQL, Microsoft SQL

DevOps/CI/CD: AWS EC2, S3, Jenkins, Atlassian Bamboo, GitHub Actions

Project Management: Atlassian Jira, Asana, Trello