Yashwanth Raj Varadharajan

Washington, DC, USA 20037 | yashwanthraj6383@gmail.com | +1(202)-372-6401
GitHub | LinkedIn | Portfolio | Google Scholar

TECHNICAL SKILLS

- **Programming Languages:** JavaScript, HTML, CSS, Python, SQL, SwiftUI, R.
- **Tools and Frameworks:** Node.js, React, Express.js, Tailwind CSS, Bootstrap, MySQL, RESTful API, PostgreSQL, Firebase, Git, GitHub, Power BI, Postman, Microsoft Excel, Oracle, UI/UX Design (Figma), AWS, MATLAB, Xcode.
- **Development Practices:** API Integration, Agile Development, Continuous Integration/Continuous Deployment (CI/CD), Responsive Design, Code Quality Assurance.
- **Soft Skills:** Critical Thinking, Leadership, Creativity, Time Management, Networking, Adaptability, Communication.

RELEVANT WORK EXPERIENCE

Parkli   **California, USA**
iOS Software Developer   **March 2024 – December 2024**

- Enhanced user experience by leading the full-stack development of a parking reservation app, building Figma prototypes and translating them into a seamless SwiftUI interface, while integrating Firebase for backend services.
- Accelerated team productivity by managing and mentoring a team of 7 developers, streamlining workflows, conducting code reviews, and integrating UI components effectively.
- Improved code quality and deployment speed by implementing CI/CD pipelines using GitHub Actions and Jenkins, optimizing development efficiency.

Access Healthcare Services   **Chennai, India**
Associate Developer Intern   **April 2023 - July 2023**

- Reduced Revenue Cycle Management (RCM) implementation time by 40% by leveraging Echobot, a Robotic Process Automation (RPA) driven platform, to streamline and automate the RCM process.
- Elevated call center operation efficiency by developing Echo Talk, a React.js based web tool that integrates RESTful APIs for patient record retrieval and ML-powered voice analysis for transcription.
- Increased resume processing efficiency by contributing to the RParser Project, assisting in developing and training models for resume extraction and classification into seven predefined roles.

Finlatics   **Mumbai, India**
Business Analyst Intern   **October 2022 - December 2022**

- Enabled data-driven decision-making by utilizing Power BI and Microsoft Excel to analyze consumer behavior and product preferences, extracting actionable insights.
- Optimized product strategy by analyzing consumer behavior data on smartphone features and providing recommendations aimed at achieving a CSI score above 9.

PROJECTS

Supplier Management Web Application   **January 2024 - May 2024**

- Developed and deployed a web application using Oracle APEX to streamline supplier management for a grocery store, enabling efficient management of supplier profiles, product inventory tracking, and access to order history in a centralized SQL database.
- Designed a user-friendly interface and implemented database optimization techniques to improve data accessibility and enable seamless updates, fostering stronger supplier relationships and operational efficiency.

BetterRest iOS Application   **June 2024 - August 2024**

- Achieved an RMSE of 170 seconds for optimal sleep time predictions by building an iOS app using SwiftUI and integrating ML algorithms like Random Forest, Decision Tree, and Linear Regression.
- Streamlined data model size to 545 bytes using Create ML in Xcode, efficiently capturing key relationships between variables for fast and accurate predictions.

PUBLICATIONS

ML based side channel power attack analysis of VLSI implementations   **December 2022 - May 2023**
Advances in Microgrid Technologies (pages 185 - 213). Elsevier. DOI: 10.1016/B978-0-443-22187-3.00008-4

- Conducted a machine learning-based side-channel power attack analysis on VLSI implementations, leveraging Random Forest algorithms to identify vulnerabilities by analyzing hardware emissions like power usage.
- Implemented custom and ASCAD datasets to assess encryption strength against ML-based attacks. Results demonstrated robust security of custom implementation, while revealing vulnerabilities in the ASCAD dataset that enabled successful key recovery.

EDUCATION

The George Washington University, School of Engineering & Applied Science   **Washington, DC, USA**
Master of Science in Computer Science

- CGPA: 3.8/4

Vellore Institute of Technology   **Chennai, India**
Bachelor of Technology, Electronics and Computer Engineering

- CGPA: 3.6/4