# Rajan Maharjan

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A passionate **JavaScript Engineer**, with over 8 years of expertise in building impactful solutions across diverse domains like IoT, Renewable Energy, Health Tech, FinTech, and Crypto. Skilled in modern JavaScript technologies and libraries, including advanced techniques in AI and ML Kit. I am committed to advancing sustainable technology, focusing on projects that positively impact society and foster a more sustainable future.

### **WORK EXPERIENCE**

## **SunPower Corporation**

React Native Mobile Engineer

May 2022 - Present

Austin, TX

- As a Mobile Engineer, I with my team apply our expertise to develop new improved commissioning and monitoring apps for SunPower customers, dealers, and installing partners, that streamlined workflows for over 1,000 users and cut onboarding time by 40% through intuitive design.
  - o Users now connect and configure devices directly via a smartphone using the **ProConnect** App
  - mySunPower App offers convenient information and control over your SunPower home solar power system after they are fully commissioned
- Contributed to a 20% increase in system efficiency through optimized design and integration of IoT devices during commissioning using Bluetooth Low Energy (BLE) and WiFi modules.
- Reduced deployment times by 30% and decreased billing minutes for GitHub Actions by 25% through effective use of automated testing in CI tools.
- Developed a Scanner Component in React Native using open-source libraries to scan multiple QR and barcodes simultaneously, resulting in annual savings of approximately \$150,000 for the company.
- Coordinated with the firmware team to resolve existing issues, resulting in a 15% decrease in commissioning time, and also refactored the firmware update process, improving update efficiency and duration.
- Supported legacy Cordova applications by updating various outdated packages, which improved stability and performance, and facilitated the transition to modern technologies, resulting in a 25% reduction in maintenance time.

## **Kent State University**

Graduate Student Developer

Jan 2021 – May 2022

Kent, OH

- As a Graduate Student Developer, I worked on various research projects to build web applications and mobile applications from scratch.
  - o **Key Project:** Immersive Educational Experience
    - NSF funded the XRi project; a system designed to provide immersive educational experiences using extended reality technology.
  - o **Tech Stack:** React.js, React Native, Python, Babylon.js
- Work on different <u>STEM Teaching and Learning apps</u>;
  - o App Links

**Oyster Financial, Inc** 

Apr 2019 - Jan 2021

Sr. Software Engineer

Mexico, MX

- Worked here as a full-time outsourced contractor through BitsBeat; developing a financial platform for freelancers, startups, and SMBs in Mexico
- As Lead Developer for a Credit Frontend Team of 5 members
  - o Worked with the Project Owner and Management team to finalize requirements and set sprint goals, ensuring alignment with business objectives for Oyster: Credit Web App and Mobile App
  - Worked closely with the design team to develop UI/UX that met project specifications and provided a seamless user experience. And engaged with backend developers for API integration, ensuring efficient data flow and overall application performance.
  - o Mentored junior developers, conducted code reviews, and maintained high standards for code quality and best practices.

**BitsBeat IT Solution** 

Dec 2018 - Jan 2021

Sr. React (Native) Developer

Lalitpur, Nepal

- Built React Native applications like <u>XcelTrip</u> with clean, efficient code. Implemented pixel-perfect UIs with smooth animations and transitions.
- Managed app preparation and release processes for the Apple App Store and Google Play Store while leading a team of React Native developers. This involved participating in two-week sprints, daily standups, and sprint retrospectives.
- Actively contributed to the React Native developer community by sharing knowledge and providing support to peers.

**Peace Nepal DOT Com** 

Dec 2016 - Sep 2018

Sr. JavaScript Developer

Lalitpur, Nepal

- Developed healthcare applications for USA-based clients using React.js, React Native, and Node.js, focusing on on-demand house calls and scheduling systems. Gained extensive knowledge of U.S. healthcare systems and managed complex design projects remotely with senior developers.
- Handled infrastructure provisioning (EC2, S3, ELB, IAM) and server setups (Ubuntu, Amazon Linux), and implemented autoscaling, CloudWatch monitoring, and S3 storage solutions.
- Created and managed a cryptocurrency auto-trading application, acquiring a deep knowledge of cryptocurrencies and mentoring junior developers.

**Spark Technology** 

**Sep 2015 – Dec 2016** 

JavaScript Developer

Kathmandu, Nepal

- With a keen interest in software development and a passion for learning, I began my programming career by developing web applications from the ground up using Angular.js and Node.js. I was also involved in deploying these applications on various cloud servers, including AWS EC2.
- Interacted with designers and junior developers to create clean, intuitive interfaces and interactions using Angular.js and Node.js, integrating IoT devices with GPS functionality.
  - One of the projects was an <u>NAS</u>; Ambulance Tracking Management web application which allows back office to monitor ambulance on real time.
  - o School Bus tracking MIS; uses the connectivity and the GPS based location to track the school bus to significantly improve safety and efficiency of the child journey.
- Attended client meetings (both government and private) to understand and define project scopes

**Oval Analytics** 

Nov 2014 – Sep 2015

Database Engineer

Kathmandu, Nepal

Designed and managed a data-mart platform with Pentaho BI tools and PL/SQL scripts for data integration

and optimization

- Supported data analysis with SQL\*Loader, stored procedures, and UNIX shell scripts for file processing.
- Also, contributed to front-end and back-end development with Python for an in-house BI analysis project.

#### **EDUCATION**

Kent State University
MS, Computer Science
Kent, OH

■ GPA: 3.9/4.0

# **Kantipur Engineering College**

**Dec 2014** 

BE, Computer Engineering; Affiliated to Institute of Engineering (IOE)

Lalitpur, Nepal

■ GPA: 3.8/4.0

## **SKILLS, CERTIFICATIONS & INTERESTS**

## Skills:

- o Advanced JavaScript: ES6+, TypeScript, Asynchronous Programming
- o Frontend Frameworks: React, React Native, Next.js, Remix.js, Angular, Vue.js
- AI in Frontend Development: TensorFlow.js, Brain.js, ML5.js (for integrating machine learning models with React applications), MLKit (for on-device machine learning in mobile applications)
- o UI/UX Design: Figma, Adobe Photoshop, Sketch
- o Backend Development: Node.js, Express.js, RESTful APIs, GraphQL
- o Testing and Quality Assurance: Jest, Mocha, Chai, Cypress
- o Build Tools and CI/CD: Webpack, Babel, Gulp, Jenkins, GitHub Actions
- o Containerization: Docker, Kubernetes
- o Performance Optimization: Code Splitting, Lazy Loading, Efficient State Management
- Version Control: Git, Git Flow, GitLab
- o Database Management: SQL (PostgreSQL, MySQL), NoSQL (MongoDB)
- o Cloud Services: AWS, Google Cloud
- Web Security: OWASP, JWT, OAuth, PING Identity Management, Protofobuf
- Monitoring and Analytics: Sentry (for error tracking and monitoring), Mixpanel (for user analytics and engagement), Firebase Analytics (for tracking user behavior and app performance)
- o IoT Technologies: GPS, Bluetooth Low Energy (BLE), WiFi Modules
- o Protocols and Communication: Protocol Buffers (protobuf), WebSocket, gRPC, MQTT
- Leadership and Mentoring: Code Reviews, Technical Leadership, Agile Methodologies
- o Additional Skills: Resolving complex issues with better solutions, clearly conveying technical information to stakeholders, and collaborating effectively with cross-functional teams.
- Certifications: React Native, Node.js Microservices, Building Bots with Node.js, Kubernetes, edX MEAN Stack,

#### Interests

- o Self-Projects: Engaging in open-source projects focused on giving back to society. Check out my portfolio website <a href="mailto:mrajan.com.np">mrajan.com.np</a> for details on these projects and their impact.
- Learning New Technologies: Explored and mastered emerging tech trends by attending meetups and staying current with industry developments.