

Morgan Rector

Software Engineer

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PROFESSIONAL EXPERIENCE

User Interface Software Engineer, *Amber Kinetics*, Union City, CA. May 2023 – Present

- **Led the complete frontend design, implementation, and testing** of an internal cloud-based application using TypeScript, React, Redux, and Jest, delivering a fully functional UI within 3 months that was adopted company-wide and improved user experience through modern UI/UX principles.
- **Reduced HMI CPU usage by 70%** and **page load time by 35%** within the first 6 months by analyzing performance with React Dev Tools and Browser Tools, optimizing React component rendering, integrating memoization, and utilizing code splitting.
- Led the **migration of multiple large-scale React codebases** from React 16.4 to React 18+, resulting in a **30% decrease in runtime errors** and enhanced maintainability.
- Contributed to **backend development of new internal application** by designing and implementing a **REST API** with C# and ASP.NET Core, ensuring efficient data flow and robust application performance.
- **Developed, tested, and deployed 45+ new features**, including cloud integration for a previously desktop-only application, a secure authentication system, and real-time data visualization for 4Hz live streaming data.
- **Implemented unit testing** using Jest for new features, ensuring robust functionality and maintaining high code quality
- **Designed and authored a comprehensive 40+ page software manual** for both engineers and customers.
- **Conducted multiple company-wide presentations** on new software features and led software Q&A sessions.

Artificial Intelligence Hackathon Judge (Volunteer), *App Academy*, San Francisco, CA. August 2024

- Evaluated and **judged projects at an AI-focused Hackathon** dedicated to social good, providing constructive feedback to participants and fostering innovative solutions aimed at addressing societal challenges through technology.

Director of Activities and Science Teacher, *Stevenson School*, Pebble Beach, CA. Jul 2021 – Jun 2022

- **Created and taught innovative curricula** for Principles of Scientific Inquiry (chemistry, physics, biology) and Marine Science, achieving a **100% course recommendation rate** from students.
- **Mentored and guided over 50 student research projects**, including technical subjects like Machine Learning and Pathfinding, fostering critical thinking and technical skills.

Co-Founder, Assistant Director and Program Manager, *OceansMicro*, Santa Cruz, CA. Oct 2020 – Oct 2022

- **Co-founded a science education nonprofit**, delivering programs both nationally and internationally, with a focus on promoting ocean conservation.
- **Led and managed a diverse team** of 8 scientists, students, teachers, and interns to create engaging educational content, resulting in increased awareness and participation in conservation efforts.

Operations Advisor and Sales Advisor, *Tesla, Inc.*, Monterey, CA. Nov 2020 – Jul 2021

- **Built and expanded a new Delivery Operations Team**, achieving nearly 100% team growth quarter over quarter while managing the heaviest volume quarter in Tesla's history at the time.
- **Organized and facilitated the delivery of 1,000+ Tesla vehicles** in Monterey and Santa Cruz counties, receiving a **95% customer satisfaction rating** from customers.

SKILLS

HTML5, CSS, DOM, TypeScript, React, React Component Optimization, React-MUI, Redux, D3.js, DevExpress, Responsive Design, Jest, Unit Testing, UX/UI Design, Data Visualization, Data Streaming, Webpack, Electron.js, Node.js, Express, REST APIs, C#, ASP.NET, ASP.NET Core, PostgreSQL, MongoDB, SQL, Ruby, Rails, AWS, Git, Documentation.

EDUCATION

App Academy San Francisco, California *Curriculum of Study in Web Development*, Oct 2022 – Jan 2023

California Polytechnic State University, San Luis Obispo San Luis Obispo, California *Bachelor of Science in Psychology, Focus in Biological Sciences. Cum Laude Scholar; GPA 3.69* Class of 2019