

# Jesse Earle

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Fullstack Developer & Architect with 15+ years building scalable web applications and data-driven systems using React, TypeScript, and modern JavaScript.

## Leadership and Technical Proficiency

Leadership & Strategy	Architecture & Technologies	Core Development
Team Leadership & Mentoring	System Design & Architecture	<b>Frameworks:</b> React, Node.js, Express
Technical Vision & Roadmap	Cloud Transformation (AWS)	<b>Languages:</b> TypeScript, JavaScript, Go
Stakeholder Collaboration	API Design (REST, gRPC)	<b>Databases:</b> PostgreSQL, MSSQL, Redis
Budget & Planning Support	Microservices & Distributed Systems	<b>Build Tools:</b> Docker, Vite, SWC, Webpack
Hiring & Talent Development	CI/CD & DevSecOps	<b>Testing:</b> Jest, Vitest
Legacy System Migration	Data Pipelines & Integration	<b>Package Mgmt:</b> Yarn, Bun, PNPM
Agile Project Management	Monorepo Strategy (NX, Lerna)	

## Work History

### Senior Technology Consultant | ExodusPoint - Contract (07/2021 – Present)

- Built real-time street orders dashboard to monitor trade execution across brokers, improving trading operations visibility.
- Created a stress-testing dashboard that applied historical Black Swan volatility to live portfolio data for forward-looking risk assessments.
- Developed a real-time options pricing dashboard for exotic derivatives with PV calculations based on live market data and user-defined barriers.
- Architected a team-wide monorepo strategy using NX, SWC, and PNPM, resolving ESM/CJS conflicts and reducing CI build times by over 50%.
- Delivered a bonus allocation API and frontend to automate year-end compensation workflows.
- Built calendar event APIs and UIs to support scheduling integration across internal tools.

*TypeScript, React, Node.js, PostgreSQL, @testing-library, Protobuf, gRPC, gRPC-Web, Vite, SWC, NX, PNPM, Ant Design*

### Vice President/Architect | MSCI Inc. (10/2020 - 11/2023)

- Architected Climate Value-at-Risk dashboard integration, enabling institutional investors to quantify the financial impact of climate change on real estate using a React frontend, REST APIs, and a backend integrating MSSQL and Elasticsearch.
- Architected an end-to-end real estate data platform serving external clients via REST APIs, integrating MSSQL and Elasticsearch with a custom React frontend.
- Built a scalable data pipeline to migrate real estate data from MSSQL to Snowflake, enabling enhanced client analytics.
- Implemented an authentication/authorization system using AWS Cognito and Node.js to secure multi-application client access.
- Designed a modern monorepo architecture with Yarn workspaces and Vite, enabling React package code sharing while maintaining AngularJS/Webpack compatibility.
- Established a feature management strategy using LaunchDarkly for controlled rollouts and A/B testing.

*TypeScript, React, Express, Node.js, MSSQL, Elasticsearch, AWS Cognito, Snowflake, LaunchDarkly, Yarn, Vite, AngularJS, Webpack*

### Senior Consultant | Morgan Stanley (03/2018 - 08/2020)

- Architected and built the UIs, APIs, and infrastructure for the Fixed Income real-time finance, budget, and headcount dashboards.
- Modernized the API architecture with Node.js/Express, creating user-friendly APIs while leveraging KDB+/Q for real-time stream processing of large financial datasets.
- Migrated the Cross Desk Administration platform from AngularJS to React on a module-by-module basis until the legacy framework was fully removed.
- Built a dashboard, UI, and API for the Fixed Income Finance Email Builder and Scheduler.

*React, React Hooks, Express, Node.js, KDB+/Q*

### Senior Engineer | OkCupid (06/2017 – 01/2018)

- Built an administrative portal for moderators to review fake profiles and abusive messages.
- Created a server-side rendering service for React applications.
- Implemented a payment frontend with backend API integration.

*React, Redux, Node.js, Sass, Docker*

### Co-Founder | Swett/Pineaapl.io (08/2015 – 12/2017)

- Built an automated exercise tracking application linking hardware beacons with gym equipment to track cardio distances and free weight repetitions.
- Created a real-time analytics system to gather customer feedback on service, speed, and quality metrics at checkout.
- Developed a dashboard analyzing customer ratings with hourly, daily, and weekly breakdowns to identify performance issues.

*Swift, React Native, React, Redux, Node.js, Express, Sequelize, PostgreSQL, Docker, Firebase, Estimote Beacons*

### Senior Software Engineer | Yieldmo (02/2016 – 05/2017)

- Built an internal full-stack application using Node.js/GraphQL and React/Redux to manage and generate ad creatives for deployment on Google's DFP.

*React, Redux, GraphQL, Node.js, Express, Docker, Webpack, Mocha, Chai, Enzyme*

### Consultant | Goldman Sachs (12/2015 – 02/2016)

- Developed a firm-wide build tool for internal frontend JavaScript products.

*JavaScript, Build Automation, Frontend Development*

### Consultant | Shutterstock (09/2015 – 11/2015)

- Built an internal PayPal Express Payment API for a Sinatra-based e-commerce payment gateway.

*Ruby, Sinatra, API Development, PayPal API*

### Senior Frontend Software Engineer | MallHawk, Inc (09/2014 – 09/2015)

- Built **I Wanna** v1, a location-based application suggesting destinations with vendor discounts.
- Built **MallHawk** v1, a marketplace for local vendors to compete with online retailers via an automated reverse auction system.

*Ember, Objective-C, Alamofire, PromiseKit, RestKit*

### Consultant | High5Games (03/2014 – 09/2014)

- Built a UI and API for filtering, sorting, and searching internal game data.

*AngularJS, Node.js, Mocha, Chai, Gulp, Browserify, Bootstrap*

### Senior Software Developer | Shopbeam (03/2013 – 03/2014)

- Built an infinite-scrolling dashboard for content publishers.
- Created a Node.js module for streaming and storing images on AWS S3.

*AngularJS, Node.js, Express, Sequelize, PostgreSQL, Redis, Stylus, Jade*

### Senior Software Developer | ICC Lowe Thermal (03/2011 – 09/2012)

- Developed a system to distribute sales aids (PDFs, videos, HTML5 apps) to an iPad client from a web-based administrative portal.
- Created a cross-platform document management iPad app for Johnson & Johnson's Vision Care Institute.
- Built a four-player Microsoft Surface video game featured at the National Hemophilia Foundation expo.

*Objective-C, C#, Node.js, HTML5, CoffeeScript, PHP, MonoTouch, WPF*

### **Software Developer | Rutgers University (03/2010 – 03/2011)**

- Developed a robust user input framework for the university's undergraduate application system.
- Performed unit and integration testing using JUnit, Dojo Objective Harness, and Selenium.

*Java, JavaScript, Dojo, Spring MVC, Oracle*

### **Programmer | Chromecell (09/2009 – 03/2011)**

- Designed and built a data acquisition, mapping, and analysis program for automated lineage tracking of cell line clones used in therapeutic drug discovery.

*Python, wxPython, Django, COM*

### **Education**

**Rutgers, The State University of New Jersey** (2006–2010) *Computer Science*