

# Melanie MacDonald

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## PROFESSIONAL SUMMARY

Senior Software Engineer specializing in front-end architecture and user-focused product development with 7+ years building scalable web applications. Expert in React, Next.js, TypeScript, and modern state management, with a track record of leading frontend initiatives, mentoring engineers, and driving measurable business impact. Experienced in full-stack collaboration, integrating APIs, backend services, and data pipelines to deliver high-performance applications.

## SKILLS

**Frontend:** React, Next.js, TypeScript, JavaScript, Angular, Nanostores, Redux, Mobx-State-Tree, D3.js

**Backend & Systems Collaboration:** Node.js, Express, Nest.js, PostgreSQL, MongoDB, API integration

**Cloud & DevOps:** AWS, CircleCI, CI/CD, Playwright, Vite, Jest

**AI & Automation:** Workflow automation with AI/LLMs (ChatGPT, OpenAI, Hygen)

**Methodologies:** Agile, design collaboration, code reviews, mentoring

## EXPERIENCE

### Optera Climate

March 2022 - Present

*Software Engineer - Senior Software Engineer - Frontend Lead Outreach Project*

- Led frontend architecture for Outreach, a supplier data platform serving 1,500+ suppliers and 3,000+ users, generating ~\$600K revenue.
- Reduced client onboarding from several days to ~10 minutes via a full-stack CSV ingestion interface with anomaly detection, collaborating with backend engineers on data pipelines and AI automation.
- Partnered with product and design teams to enhance the sustainability suite for Fortune 500 clients, focusing on intuitive UI, performance, and accessibility.
- Mentored junior engineers and established frontend best practices and testing workflows, improving team efficiency.

### Terrayn Dispensary Marketing

August 2020 - February 2022

*Founding Software Engineer*

- Delivered front-end dashboards adopted by 10+ dispensary locations, supporting ~\$3M in seed funding and recurring revenue.
- Defined product vision and MVP scope, aligning stakeholders and conducting user research to drive UI/UX and performance decisions.  
Collaborated on backend services and API integrations to handle data acquisition and analytics.
- Mentored team members in frontend engineering practices and automation, accelerating development.

### Conseqta Technology

September 2019 - August 2020

*Software Engineer*

- Developed frontend interfaces for U.S. Senate financial tech products serving 10,000+ users, ensuring usability, security, and performance.
- Built real-time dashboards for the company's Portfolio Projects, integrating frontend components with backend services (Spring Boot, Angular, PostgreSQL, MongoDB) for secure, data-heavy workflows.
- Contributed to mobile-first web design and multi-product portfolio, expanding company presence and contracts.

## EDUCATION

St. Mary's College of Maryland - BA in Biology, Minor in Studio Art