

# Luke Wald

Full Stack React Developer | Software Engineer

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## Summary

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Full Stack React Developer and Software Engineer with a robust background as a Senior Manufacturing Technology Engineer. Successfully transitioned roles, bringing over 9 years of expertise in critical thinking, problem-solving, and data analysis. Proven leadership, creativity, and exceptional customer service. Demonstrated ability to seamlessly navigate between technical domains, quickly delivering impactful results and fostering innovation. Experienced in architecting full-stack React applications and collaborating on diverse projects. I have a passion for both coding and hockey.

## Technical Skills

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### Programming & Markup Languages

JavaScript, TypeScript, HTML5, CSS3 / Bootstrap / Chakra-Ui

### Frameworks & Libraries

React / Vite, Node.js, Express.js, GraphQL

### Databases

MySQL / Sequelize, MongoDB / Mongoose

## Related Experience

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### Auto Shop Scheduler App - Freelance for Client

MERN Stack, TypeScript, GraphQL

- Led the application's front-end development using MERN stack, TypeScript, and GraphQL for a client's startup project
- Implemented a robust user authentication system that validates input fields before interacting with the backend.
- Actively participated in strategic planning meetings, contributing to project planning, feature selection, overall design and layout decisions, and workload distribution.

### Sports Team Statistics Web App

[Wald14/rubber-puckies-web-app](#)

MERN Stack, chart.js

- Passion project, enabling users to view historical stats and player trends for a men's hockey team
- Programmed and Deployed, a full stack React application, comprised of multiple components
- Created a NoSQL database for seasons, teams, players, and game information
- Designed and implemented an admin-exclusive login system, with controls for website and database updates

### Giftify

[GrantMitchell24/gift-guide](#)

MERN Stack, Chakra-Ui

- Wishlist management app allowing users to mark items as purchased on others' lists.
- Coordinated with a team of developers to build a React application and reach MVP within one week
- Led RESTful API server development, ensuring proper database management
- Designed the front-end UI for a clean user experience (UX)
- Provided tutoring to team members for timely task completion

## Education

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### University of Minnesota - Full Stack Web Development Certificate

Sept 2023 - Dec 2023

- Completed a rigorous 12-week immersive bootcamp focused on Full Stack Web Development.
- Acquired in-depth knowledge, learning to code with multiple programming languages, libraries, and frameworks
- Built full-stack applications from scratch, emphasizing responsive design, robust server-side processing, and effective database management.
- Developed two notable full-stack applications, including Giftify, alongside numerous smaller projects.
- Held the role of Project Manager, leading and coordinating the team with skillful communication and organization.
- Expanded understanding of software development best practices, software quality, emerging technologies, version control using Git, Agile, and CI/CD pipeline methodologies.

### St. John's University - Bachelor of Arts - Biology

Sept 2010-May 2014

## Other Work Experience

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### 3M - Senior Manufacturing Technology Engineer

2020-2023

- Safeguarded \$1 billion in SVOP by successfully resolving a decade-long adhesive deterioration issue
- Demonstrated expertise in FTIR analysis through self-directed education, becoming a company expert in the field
- Balanced and resolved multiple code red problems by fostering collaboration among cross-functional teams.
- Efficiently utilized various analytical techniques to troubleshoot raw material, film, and adhesive challenges, driving significant product and process enhancements across diverse 3M product lines and global manufacturing sites.
- Achieved recognition through awards including the 3P Exceptional Award in 2017, the 3P Fundamental Award in 2018, and the Quality Achievement Award in 2018.
- Mentored summer interns, actively participated in technical committees, and contributed to Tech Forum events.

### 3M - Advanced Analytical Chemist

2017-2020

- Expanded upon previous responsibilities, maintaining a proactive approach to troubleshooting and problem-solving across diverse analytical challenges.
- Continued to pursue career development through self-directed learning initiatives, lectures, and collaborative knowledge-sharing with peers.
- Augmented analytical capabilities by acquiring proficiency in utilizing and interpreting data from additional tools, including UV-Vis spectroscopy, rheology, thermogravimetric analysis (TGA), and differential scanning calorimetry (DSC).
- Demonstrated ongoing mastery and effective communication of FTIR analysis techniques, contributing to the comprehensive understanding and resolution of complex material issues.

### 3M - Analytical Chemist

2015-2017

- Demonstrated proficiency in troubleshooting raw material, film, and adhesive challenges
- Exhibited resourcefulness by spearheading the restoration of a FTIR instrument, concurrently acquiring expertise in its operation through self-directed learning efforts.

### 3M through Volt Workforce Solutions - Laboratory Research Chemist

2014-2015

- Method development for chemical analysis and material characterization of 3M products
- Conducted meticulous quality control assessments utilizing advanced techniques such as liquid and headspace gas chromatography, ensuring the integrity and performance excellence of final product formulations.

### College of Saint Benedict Grounds Department

2011-2014

- Led and mentored a dynamic team of student workers, cultivating their potential and fostering a culture of accountability and professional growth
- Acted as the primary irrigation specialist for the college, collaborating closely with external vendors to optimize water distribution systems and ensure sustainable landscape management.