

Madeleine Woodbury

Software Developer

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LinkedIn: [linkedin.com/in/madeleine-woodbury](https://www.linkedin.com/in/madeleine-woodbury) | GitHub: github.com/madeleinewoodbury

TECHNICAL SKILLS

Languages & Frameworks: JavaScript, TypeScript, React, Next.js, Node.js, Python, C#, C/C++, Alpine.js,

Tools & Technologies: Three.js, Unity 3D, WebGL, Git, Sass, Tailwind CSS, Vite, OpenCV, Machine Learning, Linux/Bash, SQL

PROFESSIONAL EXPERIENCE

Frontend Developer | Knorr Marketing

June 2023 - Present

- Develop and maintain multi-client e-commerce platform serving furniture retail businesses
- Architected complete navigation system refactor using Alpine.js, improving maintainability across multiple sites
- Built responsive applications using React and TypeScript for enhanced user interfaces
- Modernized legacy codebase by introducing reactive JavaScript patterns and component-based architecture

Multicam Director | TV Visjon Norge

September 2020 - June 2022

- Directed live studio and field broadcast productions managing real-time technical coordination
- Led cross-functional technical crews and coordinated complex broadcast schedules

EDUCATION

Bachelor of Engineering - Computer Science | UiT - The Arctic University of Norway

August 2021 - June 2025

- Programme Option: IoT and e-Health Technology
- Specialization: Image preprocessing, computer vision (OpenCV), compression algorithms, tracking systems, machine learning, computer graphics

Capstone Project: "Visualization of Space Debris Collision Simulation"

- Developed 3D simulation visualizing collisions between satellite models and space debris using Unity engine
- Implemented physics-based collision detection and visualization to demonstrate growing space debris problem
- Deployed as WebGL application with interactive 3D environment

KEY PROJECTS

New Movers Geomapping Dashboard - React Application

- Developed interactive mapping platform using Mapbox GL for visualizing residential move data clusters
- Implemented polygon creation tools allowing users to define custom geographic regions and save to database
- Built with React, Vite, and Tailwind CSS featuring real-time data visualization and business analytics

Interactive Rube Goldberg Machine - Three.js Physics Simulation

- Developed a 3D interactive environment with multiple physics elements and chain reactions
- Implemented realistic physics simulation for ball movement through mechanical contraptions
- Built with Three.js and JavaScript featuring smooth animations and user interaction controls

E-commerce Platform Navigation Modernization

- Refactored legacy multi-site navigation system using Alpine.js reactive patterns
- Improved code maintainability and user experience across furniture retail platform