

Software Engineer with 3+ years of experience building and shipping full-stack web applications in startup environments. Work across the stack on user-facing features and API integrations, collaborating with leadership and cross-functional teams to deliver production-ready software.

## EMPLOYMENT

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### **Dobson Partners – Software Engineer (Full-Stack) (Toronto, ON)**

**Oct 2023 – June 2025**

- Built and shipped a full-stack web application using React, TypeScript, Tailwind CSS, Node.js, and Express to support real estate workflows for landlords, tenants, and realtors (Project Phase 1).
- Developed a separate business management portal using Node.js, Express, Handlebars, and Tailwind CSS to support client management, appointment scheduling, and messaging workflows (Project Phase 2).
- Implemented back-end services integrating Prisma ORM to ensure reliable and efficient data access in PostgreSQL.
- Integrated RESTful APIs for media management (Cloudinary) and payment processing (Stripe) to support secure file handling and transactional workflows.
- Coordinated development efforts with executive leadership, design, and marketing teams to align technical delivery with product and business requirements.

### **ATS Group Inc. – Freelance Web Application Developer (Toronto, ON)**

**Jan – Aug 2023**

- Collaborated with design and back-end teams to refactor a web application codebase, integrating RESTful APIs and improving front-end architecture using React, TypeScript, and Tailwind CSS.
- Designed and developed a responsive, mobile-first client-facing website from scratch, emphasizing maintainable front-end structure and consistent behavior across devices.
- Established front-end structure using BEM methodology, improving maintainability and consistency across HTML, CSS, JavaScript, and SASS codebases.
- Implemented automated testing using Jest and React Testing Library, supporting accessibility and web security best practices to improve system reliability.

### **EME Group Inc. – Freelance Web Developer (Toronto, ON)**

**Nov – Dec 2022**

- Launched a mobile-responsive website establishing the client's initial online presence, integrating HTML, CSS, JavaScript, SASS, and the Google Maps API, contributing to a 200%+ increase in inbound inquiries and engagement.
- Managed domain configuration, hosting, and ongoing site maintenance, ensuring continuous availability and reliable operation for over three years.

### **ATS Group Inc. – Software Consulting Intern (Toronto, ON)**

**Apr 2021 – Apr 2022**

- Conducted research and technical analysis to guide planning and execution of a large-scale software application, reducing technical risk and informing key business decisions that supported a successful product launch.
- Collaborated with entrepreneurs, software developers, and project planners to define requirements and develop execution strategies for software initiatives.
- Engineered and presented software design solutions to executive and technical stakeholders, aligning technical direction with business goals and supporting coordinated project execution.

## PROJECTS

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### **Smart Home Sensor Planner – IoT Planning & Simulation Platform · [www.sensorplanner.com](https://www.sensorplanner.com)**

**May 2025 – Aug 2025**

- Designed and built a full-stack IoT planning and simulation platform to model smart home sensor placement, connectivity, and context-aware behavior, deployed as a production web application.
- Architected a system with a React-based interactive UI, Python back-end APIs, and a relational database to support layout modeling, sensor configuration, event logging, and rule-based automation.
- Evaluated sensor placement tradeoffs and interference scenarios through simulation, highlighting limitations of virtual modeling and informing real-world deployment considerations.
- Developed and evaluated a hybrid PSO-GA optimization algorithm to identify near-optimal sensor placement within 2D room layouts using the HouseExpo dataset, analyzing tradeoffs in coverage, overlap, cost, and energy-related constraints.

**Feature Variability Visualizer – Software Systems Modeling Tool** · [mini-feat.netlify.app](https://mini-feat.netlify.app)**Sept 2025 – Dec 2025**

- Designed and implemented a browser-based feature variability visualization tool to model mandatory, optional, and alternative features, addressing usability and scalability limitations in existing tools such as FeatureIDE.
- Defined and implemented functional, non-functional, and human-centric requirements, translating software product line theory into an interactive system with searchable hierarchies, constraint visualization, and accessibility-aware UI design.
- Architected a modular client-side system using structured data parsing and graph-based visualization to support large feature models, constraint highlighting, error handling, and responsive interaction.

**EDUCATION**

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**Master's Degree in Electrical and Computer Engineering (4.21/4.30 GPA)****Graduated: December 2025**Ontario Tech University, *Oshawa, ON, Canada*

- Orientation Leader for Fall 2025 multi-day orientation, supporting campus-wide onboarding for 2,300+ incoming students.

**Bachelor's Degree in Electrical Engineering and Management (Honours)****Graduated: May 2019**Ontario Tech University, *Oshawa, ON, Canada*

- Capstone Project Lead: Led a 3-person team building an embedded fault-detection system with mobile integration.
- Implemented device-to-app communication and real-time notifications via a backend API with a relational database.

**HOBBIES & INTERESTS**

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Personal software projects, 3D modeling, technical reading and self-study, archery, and jogging.