

# DANIEL THAM

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## SUMMARY

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Data and AI-focused software developer specializing in Python, full-stack web development, and machine learning to build scalable applications and high-impact educational technology solutions.

## SKILLS

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**Languages & Frameworks:** Python, JavaScript, HTML/CSS, SQL, REST APIs, Node.js, React, Next.js, Django

**AI, Data & Systems:** Machine Learning, NLP, Scikit-learn, LangChain, Vector Databases, PostgreSQL, Supabase, AWS, Docker

## WORK EXPERIENCE

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### CLOVERDALE ROBOTICS LEARNING

Surrey, BC

Curriculum Manager

Oct 2024 – Present

- Delivered and created Python, Scratch, and Micro:bit curricula to 25+ schools, as measured by successful adoption across all partner institutions, by authoring comprehensive student handbooks and lesson plans.
- Increased student engagement and learning outcomes for classes of 12–20 learners, as measured by individualized progress tracking, by crafting tailored learning plans, and by fostering a positive, safe classroom environment.
- Managed full-day programming summer camps for students aged 6–12, as measured by successful completion of multi-day projects, by implementing age-appropriate coding activities and structured schedules.

### OPTIMIL MACHINERY INC.

Delta, BC

Software Developer

Jan 2024 – Apr 2024

- Increased operational efficiency for 200 employees by eliminating manual timecards through a Python-based web application integrated with an SQL database and barcode scanner system.
- Delivered features on schedule and drove strong stakeholder adoption by collaborating with IT, conducting on-site demos, and providing hands-on training during rollout.

## PROJECTS

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### EPIC SEVEN REAL TIME ARENA DRAFT ASSISTANT

Dec 2025 - Present

- Engineered a machine learning draft prediction system, achieving win-rate analysis across 372+ heroes and 5-pick draft sequences by implementing logistic regression with label encoding, standardized scaling, and training on 10,000+ historical match records using Python scikit-learn
- Developed a full-stack web application delivering real-time hero recommendations and win predictions with sub-second response times to optimize competitive draft strategy through Flask REST APIs, asynchronous AJAX requests, and dynamic JavaScript UI with 10+ interactive features, including intelligent ban management and Select2 integration

### QUIZNOTES

Dec 2025 - Present

- Architected and deployed a full-stack gamified music theory learning platform serving students and educators with 10+ interactive quiz types and real-time progress tracking, utilizing Next.js, React, Supabase (PostgreSQL), and Stripe APIs to deliver a mobile-responsive application with role-based access control and subscription management.
- Engineered a comprehensive teacher portal enabling class management for 100+ concurrent students with custom quiz creation, assignment distribution, and automated grading workflows, implementing RESTful APIs, Row-Level Security policies, and VexFlow music notation rendering to provide educators with professional-grade assessment tools..
- Designed and integrated a monetization system processing subscription payments across 3 pricing tiers (student premium, teacher monthly/yearly) with automated role upgrades and access control, leveraging Stripe webhooks, secure webhook signature verification, and database transactions to ensure reliable payment processing and prevent unauthorized access.

## EDUCATION

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### Simon Fraser University

Burnaby, BC

Bachelor of Science, Major in Computer Science; Concentration in Information Systems

Jun 2024