

Jack Ruttan

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EXPERIENCE

Founder and Lead Software Engineer

Feb. 2026 – Present

Primate | primate.sh

Toronto, ON

- Architected a GitHub-integrated **CI/CD** platform that triggers on pull requests to provision ephemeral **EC2** environments, build customer repositories via **AWS Lambda**, and return UI test results in **<4 minutes** per PR
- Built an autonomous **AI QA agent** using a vision-language model and Playwright, containerized with **Docker**, to navigate complex web applications, and automate end-to-end UI testing workflows

Technical Project Lead

Sept. 2025 – Apr. 2026

Canadian Red Cross

London, ON

- Built an event-driven content pipeline with automated triggers and **embedding**-based semantic tagging, reducing stale content by **40%** across the organization
- Led a cross-functional team of 6 engineers using **Agile** methodologies to design and ship an internal knowledge platform, replacing legacy SharePoint infrastructure and closing a **30% staff engagement gap**

Software Engineering Intern, Applied AI

Jul. 2025 – Sept. 2025

Unity Health Toronto

Toronto, ON

- Designed a stateful clinical interview system using **LangGraph**, implementing graph-based control flow to administer a standardized psychiatric diagnostic interview as a structured **machine learning** pipeline
- Built a multi-stage evaluation pipeline combining rule-based classification, LLM scoring, and **spaCy** PII redaction, reducing hallucination rates by **35%** during clinical data ingestion

PUBLICATIONS & RESEARCH

Machine Learning Researcher

Jan. 2025 – Jun. 2025

Algoverse AI Research

Remote

- Published at **NAACL 2025** and accepted to **NeurIPS 2025**; built a few-shot pipeline with Levenshtein filtering to improve low-resource language identification from **13.5% to 100%**
- Established the first computational **NLP** benchmark for the Comanche language; built a synthetic data generation pipeline to expand a zero-resource corpus from scratch

PROJECTS

Doppels | *TypeScript, Next.js, LangGraph, Supabase, Gemini* | [GitHub](#) | [Live App](#)

Feb. 2026

- Won **Best Product Design** and **Top 5 Finalist** at McHacks 2026; AI networking platform where autonomous AI personas conduct cold outreach on behalf of users – shipped to **50** alpha users in 24 hours
- Solved multi-turn context management across parallel agent sessions via context windowing, structured output validation, and LLM evaluation hooks to maintain persona accuracy at scale

Optimate | *Python, TypeScript, Next.js, AWS, Cohere* | [GitHub](#) | [Demo](#)

Sept. 2025

- Won **Federato Gold Sponsor Challenge** and **Y Combinator Unicorn Prize** at Hack the North 2025 (1,000+ participants); AI-assisted underwriting platform that parses insurance contracts and surfaces risk insights
- Built a **reranking** pipeline where underwriter accept/reject decisions dynamically updated prompt context to improve risk prioritization, plus a per-contract **RAG** chatbot for clause-level Q&A

TECHNICAL SKILLS

Languages: Python, Go, TypeScript, Java, SQL

Frameworks and Libraries: React, Next.js, Node.js, Tailwind, FastAPI, PyTorch, LangGraph, Playwright, pytest

Tools and Platforms: Docker, AWS, Git, Linux/UNIX, GitHub Actions, PostgreSQL, pgvector, Redis

EDUCATION

Western University

London, ON

B.Sc. Honours Specialization in Computer Science, Minor in Mathematics

Expected May 2028