

DYLAN CARTER

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EDUCATION

University of Waterloo

Honours Bachelor of Computer Science

Waterloo, ON

Harbord Collegiate Institute

Ontario Secondary School Diploma — 96% Grade 12 Average | Contests: Euclid · CCC Senior · Fermat

Toronto, ON

EXPERIENCE

IT Data & Analytics Intern

Redpath Sugar Ltd.

May – Aug. 2026

Toronto, ON

- Saved 420+ hours (~1 hour of manual work per use) across 30+ employees across multiple departments by building brand-compliant 3 theme GANTT/Timeline PowerPoint Generator, a VBA and COM automation tool, that produces templated project management timelines exported from structured Excel data including milestone markers, dependency tasks, etc.
- Supported VP, IT Enterprise Systems, Data & Analytics by automating weekly release monitoring across 3 SAP products with a Python/pandas delta-detection pipeline that filters 1,200+ raw rows to actionable changes and classifies 390+ tracked records, publishing to SharePoint list where Power Automate upserts trackers and triggers Outlook digests.
- Provided day to day IT support for Redpath employees from configuring hardware, issue resolution, onboarding set up and decommissioning, maintaining laptops, desktops, and Honeywell Thor vehicle-mounted computers across operational teams.
- Developed AI automation agents in Microsoft Copilot Studio and Copilot Agent Builder to identify and eliminate recurring manual workflows across the agency.

Gymnastics Coach · NCCP Competition-One Certified

1,000+ Coaching Hours

2022 – 2025

Toronto, ON

- Developed athletes from recreational beginner to Team Ontario competitive level by designing individualized training progressions under NCCP curriculum across 1,000+ on-floor hours.

PROJECTS

Mahjong HK | *React, TypeScript, Cloudflare Durable Objects, Vercel, Anthropic Claude API*

mahjonghk.ca

July 2026 – Aug. 2026

- Built a full-stack Hong Kong mahjong play-and-learn app with real-time cross-device multiplayer, using an authoritative server model (Cloudflare Durable Objects) so hidden game state cannot be read or forged by a modified client.
- Designed a pure, UI- and transport-independent TypeScript game engine (win detection, faan scoring, shanten) covered by 400+ unit tests, reused unchanged across client, server, and lesson replays.
- Integrated the Anthropic Claude API for a coaching feature using an “engine computes, model narrates” pattern, exact analysis from tested code, natural-language explanation from the model, reducing latency and eliminating scoring errors.
- Drove development with agentic tooling (Claude Code) via spec-driven, phase-gated, test-first workflows; diagnosed a deterministic API failure caused by reasoning-token exhaustion by logging raw model responses rather than trusting the SDK.

Prospect | *Next.js, TypeScript, PostgreSQL, Supabase, Tailwind CSS, Anthropic Claude API*

prospect-tau-three.vercel.app

June 2026 – Aug 2026

- Designed a full-stack co-op application tracker on Next.js with a 7-table PostgreSQL schema, row-level security, and Postgres triggers for automatic status-history logging, across 4,000+ lines of TypeScript.
- Built 5 backend API routes integrating the Anthropic Claude API server-side, powering JD parsing, PDF resume extraction, bullet relevance matching, resume scoring, and interview-prep generation.
- Implemented drag-and-drop ranking, cycle-based filtering, and live countdown widgets over a relational calendar table, with automatic feature activation via email-domain detection.

Vision One Million | *Python, LangChain, LangGraph, Streamlit, BeautifulSoup, GitHub Actions*

vision-one-million.streamlit.app

March 2026

- Led a 3-person team to design a three-tier data ingestion pipeline (REST APIs, BeautifulSoup scrapers, then a Tavily AI search fallback) across 5+ government sources, eliminating 160 hours/year of manual research.
- Enforced data integrity across all ingested metrics using Pydantic schema validation and GPT-4o-mini anomaly detection prior to persistence in SQLite.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, C, VBA

Frameworks & Tools: Next.js, LangChain, LangGraph, Streamlit, Power Automate, Copilot Studio, Copilot Agent Build, GitHub Actions, Microsoft 365

Libraries & APIs: pandas, BeautifulSoup, PyPDF2, Pydantic, Anthropic API, OpenAI API, Tavily, Supabase