

MATTEO PESENTI

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EDUCATION

University of Waterloo

Bachelor of Software Engineering (Honors) Candidate

Waterloo, ON

Sep. 2022 – Apr. 2027

EXPERIENCE

Carta

Full-Stack Developer – Investor Experience Team

Jan. 2026 - Current

Kitchener, ON

- Building **LLM-powered document parsing** tools in **Python** to extract cap table data from fund documents, automating data ingestion for Carta's fund administration platform.
- Developing **AI agent workflows** to migrate legacy Knockout.js components to **React**, accelerating frontend modernization for the Investor Experience product.
- Delivering full-stack features using **React** and **Python/Django**, enabling PE and VC firms to monitor portfolio company valuations, cap tables, and investment performance.

Adentro

Full-Stack Developer – Core Product Team

May. 2025 - Aug. 2025

San Francisco, CA

- Engineered **React + Flask** customer portal editor, building React components and backend **REST/gRPC APIs** to enable businesses to customize WiFi portal experiences.
- Developed a **Go-based Kafka** consumer to populate venue metadata at scale, integrating Foursquare, Google Places, and Yelp APIs with rate-limiting and retries.
- Built a React component for dynamic captive-portal ads backed by **gRPC** services querying **PostgreSQL** and **S3**, enabling targeted campaigns across millions of users.

National Research Council

Application Developer

Sep. 2024 - Dec. 2024

Ottawa, ON

- Built a full-stack wildfire hazard mapping application with **Flask REST APIs** and a dynamic **React** interface for real-time **GIS data visualization**.
- Developed a **Python/Qt** desktop tool to disseminate wildfire-resilient building guidelines, integrating hazard, exposure, and construction GIS data.

Sizzle AI

AI Developer & Data Engineer

Jan. 2024 - Apr. 2024

New York, NY

- Built an AI-powered diagram-solving tool and real-time notification system with **React**, **FastAPI**, and **PostgreSQL**, driving an **8% increase in user engagement**.
- Fine-tuned and deployed a diagram image classifier using **GPT-Vision** and **PyTorch** on **10,000 images**, achieving **94% F1 score** for production inference.
- Migrated ML services from Hugging Face to **Baseten**, reducing latency spikes by **30%** and improving reliability across **20+ production models**.

PROJECTS

Poker Solver - Distributed MCCFR

- Engineered a distributed MCCFR poker solver using **hash-partitioned shared memory** and lock-free reads, enabling parallel game tree traversal across N workers via **Python multiprocessing**.

PokerGPT - Discord Poker Bot

- Built GPT-powered Discord bot using **LangChain** for strategic move generation and **MySQL/SQLAlchemy** for persistent game state, deployed to **2,500+ servers**.

SKILLS

- Languages: Python, Go, JavaScript, TypeScript, SQL, C++, Bash, C
- Frameworks & Libraries: React, Flask, FastAPI, Django, Gin, SQLAlchemy, Pandas, PyTorch, Tailwind CSS
- Tools & Technologies: Docker, Git, PostgreSQL, MySQL, Kafka, gRPC, AWS, Jenkins, Redis