

Shaurya Chandna

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Education

University of Waterloo

09/2022 – Present

B.Sc., Computational Mathematics (4th Year)

Coursework: Neural Networks, Numerical Computation for Financial Modelling, Computational Statistics & Data

Analysis, Logic & Computation, Optimization, Information Theory & Applications, Computer Organization & Design

Awards: President's Scholarship of Distinction(1 of 200 students awarded), Faculty of Mathematics Entrance Scholarship

Professional Experience

Ontario Ministry of Energy and Electrification

01/2025 – 04/2025

Data Analyst Intern - Toronto, ON

- Built a centralized pipeline using Pandas in Python to extract, clean and transform Ontario building energy datasets.
- Designed and deployed a RESTful API using FastAPI to automate building energy synchronization data with ArcGIS.
- Used Python automation to refine 40% of company maps and dashboard workflows, reducing cleaning time by 97%.

Innova Solutions

05/2024 – 08/2024

Data Science Intern - Georgia, Atlanta

- Developed a hybrid time series forecasting model in Python to optimize warehouse inventory, combining Croston's Method & ARIMA with a decision tree selector trained on demand sparsity and variance, reducing stockouts by 12%.
- Enhanced SaaS usage prediction accuracy by 4% via feature engineering, Bayesian tuning, and SHAP interprability.

Elevon Data

05/2023 – 08/2023

Data Analyst Intern - New York, NY

- Developed end-to-end ETL pipelines, utilizing Airflow for scheduling, Talend DI for data transformation, and SQL for efficiently storing and querying structured data.
- Designed advanced Power BI reports with custom DAX measures, interactive visualizations, and data modeling to track usage and network spending, driving a 7.3% reduction in project costs.

Projects

Heads-Up Poker Bot (Python, PyTorch, sci-kit learn, Docker, AWS, React)

- Developed reinforcement learning poker agent using CFR & Deep Q-Networks to approximate Nash equilibrium.
- Built opponent modeling system (RandomForest, 87.3% accuracy) for adaptive strategy & decision optimization.
- Designed scalable ML pipeline for synthetic data generation, feature engineering & automated training/inference.
- Deploying Flask-React web app with Docker microservices on AWS EC2/RDS, integrating real-time gameplay.

Ads for AI Agents (Python, QDrant, Langchain, SBERT)

- Built a RAG-powered model to recommend user personal & web host-based advertisements, to host on AI agents.
- Optimized QDrant vector database performance through HNSW indexing and payload-based filtering.
- Fine-tuned OpenAI's text-embedding-3-small model using contrastive learning & triplet loss to enhance quality.

Leadership & Involvement

Socratica Society at University of Waterloo

05/2025-06/2025

Team Lead - Waterloo, ON

- Organized a co-working event for 40+ participants, helping curate participant projects and deliver demo showcases.

William Lowell Putnam Mathematical Competition

12/2023

Participant - Waterloo, ON

- Ranked amongst the top 5% among just under 4,000 competing students from 471 North American institutions.

Interests & Skills

- **Languages & Framework:** Python, SQL, C/C++, React, PyTorch, Tensorflow, FastAPI, Streamlit, PostgreSQL, Node.js,
- **Tools:** VS Code, GitHub, AWS, Docker, Figma, Cursor, Claude Code
- **Skills:** Software development, Problem-solving, Data structures, Algorithms, ETL, Communication, Teamwork
- **Interests:** AI projects, Table Tennis, Travel, Food, Soccer, Music