

# Caitlin Chee-Kirkpatrick

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## EXPERIENCE

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- **Quanser Consulting Inc.** Markham, ON  
*Business Intelligence Analyst* Aug 2023 – Present
  - Designed and shipped executive **Power BI** dashboards for sales/operations; improved alignment and performance tracking.
  - Automated workflows with **Power Automate** and **JavaScript**, reducing manual entry by **30%** and increasing data accuracy.
  - Built **Python** (Requests/BeautifulSoup) scrapers to ingest external datasets for competitive and market analysis.
- **HIC Global Solutions** Vaughan, ON  
*Salesforce Developer* Mar 2023 – Sep 2023
  - Delivered features across two orgs (design, build, integration, testing, deployment). Implemented logic in **Apex/SOQL** and custom objects.
  - Led stakeholder demos and documentation to align technical solutions with business needs.
- **Agency for Science, Technology and Research (A\*STAR)** Singapore  
*Research Intern* Jan 2022 – Aug 2022
  - Analyzed hydrogel datasets using **Python** (Pandas/NumPy); presented weekly research insights to senior scientists.

## PROJECTS

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- **Valorant Win-Rate & Agent-Comp Predictor (Python, SQL, scikit-learn, SHAP, FastAPI, Docker, MLflow)**: End-to-end lifecycle: ingested **API** match/agent data into a **SQL** warehouse; built features (agent synergies, map performance, economy swings); trained/tuned **XGBoost/LogReg** with cross-validation; evaluated via **AUC, F1** and **explainability (SHAP)**; deployed a **FastAPI** prediction service, containerized with **Docker**, with run tracking in **MLflow**. <https://github.com/caitlincheekirkpatrick/valorant-win-predictor>.
- **Volleyball Analytics & Lineup Optimizer (Python, SQL, Power BI, OR-Tools)**: Scraped/ETL rally-level stats into **SQL**; queried for EDA; engineered features (serve-receive quality, dig efficiency, rotation effects); clustered players into archetypes; implemented a **linear programming** lineup optimizer (**OR-Tools**) to maximize expected point differential; published interactive **Power BI** reports (match summaries, player cards). <https://github.com/caitlincheekirkpatrick/volleyball-analytics>.
- **Cocktail Recommender & NLP Ingredient Graph (Python, SQL, Sentence-BERT, NetworkX, Streamlit)**: Parsed recipes into normalized **SQL** tables; built a **content-based recommender** using **Sentence-BERT** embeddings and an ingredient-cocktail graph (**NetworkX**); generated “what can I make with my bar” suggestions via **SQL** + graph queries; optional simulated **collaborative filtering**; packaged as a **Streamlit** app. <https://github.com/caitlincheekirkpatrick/cocktail-recommender>.

## TECHNICAL SKILLS

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- **Python**: Pandas, NumPy, scikit-learn, Matplotlib    **SQL**: modeling, queries, optimization    **ML**: classification, clustering, feature engineering, CV/tuning, **SHAP**    **MLOps**: FastAPI, **Docker**, MLflow, pytest/CI    **BI**: Power BI, Tableau    **Cloud/Platforms**: Azure, Salesforce, Git/GitHub

## EDUCATION

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- **York University** Markham, ON  
*BASc, Digital Technologies (Data Science Stream)* 2023 – Present
  - Award: Experiential Education Award (\$4,220)
- **University of Toronto** Toronto, ON  
*BASc, Engineering Science; Business Minor; Certificate in Leadership* 2020 – 2023
  - Award: Dean’s Merit Award 2020 (\$2,000)