Cynthia Zhou

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Highlights

- Proficient in **Python, R,** and **SQL**, with demonstrated expertise in software development and data analysis
- Software Development Intern at Amazon, developing automation tools and technical documentation in a fast-paced, collaborative engineering environment

Education

Bachelor of Science, University of Toronto   **Sep 2022 – Apr 2026**

- Computer Science Specialist and Data Science Specialist with co-op

Work Experience

Software Development Engineer Intern, Amazon   **May 2025 – Aug 2025**

- Developed an automation tool integrating agentic AI and MCP tools for data ingestion, reducing a process that previously took months to just 1.5 days
- Implemented AWS Lambda for scalable execution, S3 for secure data storage, and CloudWatch for automated logging and monitoring, streamlining data processing workflows
- Authored and maintained high-level and low-level design documents to clearly communicate system architecture and support ongoing development

Mobile App Developer, University of Toronto   **May 2024 – Apr 2025**

- Contributed to developing and testing iOS and MacOS applications for the University of Toronto
- Developed a PDF reader app for St. Michael's Hospital, integrating Siri Intent to enable user interaction with Siri and PDFKit for document handling and rendering within the application
- Hosted a workshop for participants in the School of the City's App Development Competition on integrating MapKit, annotating locations, and retrieving the user's current location

Project Experience

Product Data Analysis   **Jan 2025 – Apr 2025**

- Analyzed user behavior and platform usage data for Jargon, a Chrome extension for language learning, to uncover engagement drivers and feature adoption patterns
- Applied data processing, **exploratory data analysis, topic modeling (LDA), sentiment analysis, k-means clustering, and regression modeling** to segment users and identify key success factors
- Delivered actionable business insights that informed product recommendations for onboarding, UI/UX, and feature prioritization to enhance user retention and satisfaction
- Authored a comprehensive data analysis report used by the team to guide product and marketing strategies

Prediction from Survey Data   **Jan 2025 – Apr 2025**

- Developed and compared multiple supervised machine learning models **(Naive Bayes, KNN, Decision Trees, Neural Networks)** to predict food preferences from survey data
- Engineered features from raw data, including **text processing, categorical encoding, and one-hot encoding**, to maximize model performance
- Evaluate models using stratified **train-test splits, cross-validation**, and **hyperparameter tuning**
- Selected and improved a Naive Bayes model as the optimal predictor, achieving ~85% test accuracy
- Communicated ML findings and recommendations in a detailed technical report

Twitter Ads Analysis   **Mar 2024 - Apr 2024**

- Extracted recent advertisement tweets using the **Tweepy API** for data collection and analysis
- Utilized Python libraries including **NumPy**, **NLTK**, **scikit-learn**, and **pandas** for comprehensive data analysis
- Employed **machine learning** algorithms such as **unsupervised clustering**, **linear regression**, and **Naive Bayes** to identify the most popular types of advertisements on Twitter