# Amirali Najafizadeh

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#### **EDUCATION**

## **Toronto Metropolitan University**

Bachelor of Science in Computer Science with Distinction, 2024 *GPA*: 3.7

#### **EXPERIENCE**

### **Software Engineer | Toronto Metropolitan University:**

Aug 2022 - Present

- Develop automated solutions for repetitive tasks using Google Macros, APIs, Python, and SQL enabling the team to concentrate on higher-priority activities.
- Collaborated with one of the senior developers to create and enhance our internal API to assist other
  employees in completing their tasks more efficiently. The API offers automated features like creating
  drive folders, sending emails, and managing spreadsheets by clearing, removing, and populating them
- Automated IP address ownership identification for high priority vulnerabilities (CVSS 8+) using Python, Google API, and SQL, and set up weekly email notifications for 200+ vulnerable users instructing them to resolve the issue.
- Created and implemented a program using Python and Scrapy API to retrieve all payment links across the university domain, enabling full control over link ownership and activities.
- Identified database inefficiencies, and developed a streamlined, efficient schema based on 4NF principles, enhancing the overall database structure.
- Developed software to sync new database data across all spreadsheets, ensuring users have access to the most up-to-date information.

#### **PROJECTS**

## Income Prediction Analysis / Python, Machine Learning

- Analyzed "Census Income" dataset to predict income levels exceeding \$50,000 annually using various classification methods.
- Implemented binary classification, K-Nearest Neighbors, Naive Bayes, Artificial Neural Networks, and Support Vector Machines to explore different approaches.
- Preprocessed data by binarizing attributes, encoding categorical features, and standardizing numerical values.
- Achieved up to 85% accuracy in income prediction using SVM, highlighting proficiency in data analysis and machine learning techniques.

#### Movie Recommender Application / Python, Machine Learning, HTML, CSS

- ∉ Implemented a user-based collaborative filtering (CF) algorithm to provide personalized movie recommendations.
- ∉ Preprocessed and normalized data, calculated cosine similarity between the target user's ratings and other users' ratings and stored the scored similarities in a dictionary using a hash map data structure.
- € Split the dataset into test and training sets, using matrix factorization filtering algorithm to calculate the accuracy of the system, 82%.

# Technologies and Languages

Python, C++, SQL, Bash, HTML, CSS, JavaScript

• Git, GitHub, Google API, Ubuntu, MySQL, AWS