# Timothius Prajogi

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## **EDUCATION**

University of Toronto | Expected Graduation Year: 2026 | Computer Science Specialist; Minor in Statistics

## RELEVANT QUALIFICATIONS

#### **TECHNICAL SKILLS:**

- Front-end development: React with Next & ReactNative with Expo; HTML, CSS, JavaScript, jQuery
- Back-end development: Django with Python, Spring Boot with Java
- Deployment tools: Docker, Heroku
- Databases: SQL: MySQL, PostgreSQL & NoSQL: MongoDB
- Unit testing frameworks: JUnit for Java, Jest for JS, PyTest for Python
- Strong understanding of clean architecture and object-oriented programming
- Proficient in version control tools through Git and GitHub repositories
- Additional languages: R, C, C++

#### **SOFT SKILLS:**

- Strong communication skills, collaborative and informative
- Strong drive for solving problems, not afraid to use any resource at hand to achieve goals
- Creative thinker who is open to new ideas
- Unwavering under time constraints, can balance and prioritize schedules and tasks

## **PROJECTS**

# **Thrive - Bellwoods Strategic Capital**

2023

Contract

- A mobile application geared towards improving the mental health of users through mental exercise
- Full-stack developer working with Django's REST API framework, ReactNative for mobile development, and PostgreSQL for data storage / management
- Responsible for deploying the Django server Docker image on Heroku, supported other DevOps team with the deployment of and front-end deployment through Expo
- Authored a refined front-end testing suite using Jest
- Coordinated with the partner to manage expectations and update on their requested features and requirements

#### Order-Up

2022 – Present

Personal Project

- Took initiative as treasurer to develop an ordering and ticketing system to replace the outdated pen and paper system.
- Constructed in Java using the Spring Boot framework for the backend API, employed JavaFX for the GUI
- Deployed as a standalone Jar, serving 300+ customers at each of the 3 events it was utilized
- Utilized an API (JDA/Discord4J) for external connection to the Discord Bot used for kitchen-side order management

#### **Branch-Out**

2023

Personal Project

- Developed a dynamic web-based contacts page mimicking a family tree to visualize and manage contact information among users/family members
- Employed Next.js framework alongside React to design for efficient user interaction and seamless navigation
- Implemented MongoDB to securely store and manage user contact data
- Designed intuitive user interfaces to create, edit, and visualize contacts within the family tree, optimizing the user experience
- Leveraged modern web development practices to ensure scalability, responsiveness, and robust performance of the application

### **Predicting Eedi Student Scores**

2023

Course Project

- Employed machine learning methods such as: K-Nearest Neighbors (KNN), probabilistic models, and neural networks to predict student scores
- Utilized Python with PyTorch, Sci-Kit, and numpy to implement, fine-tune, and evaluate various models, ensuring optimal performance and accuracy
- Used data collected by Eedi, an online education platform, extracting insights and trends to better educational outcomes
- Conducted in-depth analysis and modification of models, employing creative approaches to improve model accuracy.

## **Restaurant Review Application**

Course Project

- Prioritizing catering towards a user point of view, solving complexities as a team in a structured and organized matter, optimizing each individual's time
- Developed with over 90% test coverage using JUnit framework for testing
- Optimized efficiency in the storage of the data in Postgres, identified critical versus disposable information

2022

- Applied presentation skills, describing our project as if it were a product to a client
- Demonstrating clean architecture, SOLID principles, object-oriented design and development, design patterns, OOP

#### Bed'n Breakfast

2023

Course Project

- Recreated AirBnB's system with a focus on data management
- Using MySQL and embedded SQL in Java using MySQL's JDBC driver, designed schemas and queries to satisfy the core requirements of the system
- Upon thorough testing with over 1000 entries, the application demonstrated solid performance and reliability.
- Improved upon base system with bonus of a simple linear regression model to estimate listing pricing and Apache OpenNLP models for natural language processing, reporting keywords from user reviews

## **Expedia Data Analysis**

2021

Course Project

- Analyzed dataset provided by Expedia and applied techniques learned in lecture to derive useful insights to optimize suggestions and increase income
- Made use of various simulation and testing methods including hypothesis testing and classifications trees
- Effectively utilized visual aids such as graphs and data models provided in R that effectively display our findings
- Employed extensive methods in R to compile, clean, and operate on the data provided by Expedia

## **COVID-19 Data Analysis**

2021

Course Project

- Based on COVID-19 vaccination and case data, performed analyses on the datasets, presenting key findings in a visually pleasing and understandable manner
- Applied Python and Python libraries such as Pandas and Plotly to effectively carry out the analysis

## CS50+G

2020

Personal Learning Goal

- Took an opportunity to develop my skills, applying past knowledge of Python, to problems presented in Harvard's free "Introduction to Computer Science" and "Introduction to Artificial Intelligence" courses
- Explored further and quickly learned Lua and later the essentials of C# for the "Introduction to Game Development" course
- Developed parts of both 2D and 3D games in Lua and Unity respectively

## WORK EXPERIENCE

#### **Senior Partner**

2021 - Present

Real Fruit Bubble Tea | Toronto, ON

- Work independently as well as collaborate cohesively with my coworkers to complete orders efficiently and quickly
- Adapt to situations as they arise; learn quickly so as to not fall behind
- Delegate and organize tasks to keep the store operating
- Precisely count and report cash to measure the store's profits with great attention to detail

#### Treasurer/Volunteer

2019 – Present

Community in Action, St. Thomas More | Toronto, ON

- Successfully lead, collaborate and communicate with my peers to reach fundraising goals, meet event deadlines and advance ideas
- Analyze the project at hand and identify what needs to be done first; solve any problems that arise in a timely fashion
- Both expand on and present new ideas, are able to maintain relationships despite disagreement, and present an idea that is acceptable to the team

## **Deputy Returning Officer**

2022

Elections Ontario | Toronto, ON

- Communicate effectively with a variety of citizens from all different backgrounds, without causing issues or bias for a fair and credible election
- Accurately follow protocols and spot points of failure to ensure all scrutineers' approval

## **ADDITIONAL**

#### **RELEVANT COURSES:**

- Introduction to Machine Learning: KNN, decision trees, neural networks, reinforcement learning with: PyTorch, Sklearn, Numpy, Pandas
- Statistics and Data Analysis: Statistical reasoning, R, probability distributions and their applications
- Operating Systems: Pintos, C, Threaded programming
- Computer Organization: Assembly, Computer structures, Instruction execution, Addressing techniques, and Digital representation of data, MIPS architecture
- Data Structures and Analysis: Divide and conquer, Greedy algorithms, Approximation algorithms, Network flow, Complexity, Dynamic programming, Randomized algorithms