Ankur Phadke

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Education

University of Waterloo — Waterloo, ON
Candidate for Bachelor of Computer Science, Data Science (3A) — *Sep. 2019 – Present*

- Faculty Average: **90.2%**
- Relevant Coursework: Object Oriented Software Development, Data Structures and Data Management, Applied Linear Models, Mathematical Statistics, Probability, Foundations of Sequential Programs

UWaterloo Data Science Club - External Affairs Coordinator

- Facilitation of effective communication, logistics, and organization of events with industry experts.

Skills Summary

Languages: Python, C/C++, SQL, R, HTML/CSS, JavaScript, Bash, MIPS Assembly
Technologies: Spark, Hadoop, BigQuery, Snowflake, GCP, AWS, Git
Libraries: Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, OpenCV
Data Tools: Looker, Power BI, Tableau, Amplitude

Experience

Undergraduate Research Assistant — **May 2021 – Present**
University of Waterloo — *Waterloo, ON*

- Working on **Rule-based Translation** for static embedded SQLP to standard embedded **SQL** for performance critical threads on a Main-Memory DBMS, supervised by **Professor Grant Weddell.**
- Improved query speed by **19%** through the implementation of compiler code generation programs for SQLP path query language on a **General Relational Model Database**.

Data Analyst — **Jan. 2021 – Apr. 2021**
Square Enix Montréal — *Montréal, QC*

- Worked on the Business Intelligence team for **Space Invaders AR** mobile game.
- Pioneered **player journey clustering** and prediction of player personas, using Expectation-Maximization on **Mixture of Markov Models** to identify the parameters of the K Models.
- Enhanced the game's core action retention by **12%** through changes in the metagame based on feature-specific ad-hoc analysis conducted using **Python**, **SQL**, **Amplitude**, and **Looker**.
- Reduced **35%** of data storage costs by designing efficient **in-game tracking** and optimizing SQL queries.

Core Software Developer — **Sep. 2020 – Feb. 2021**
WATonomous — *Waterloo, ON*

- Researched and implemented a fully autonomous **Ego-Localization** module on a self-driving car.
- Used **C++** and **ROS** to implement probabilistic decision making algorithms for **path planning** using odometry signals from LiDAR scans and point cloud maps.

Projects

Mental Health Disorders Diagnosis | *Python, R, Power BI*

- Won the **'Best Insight' award** at the 2021 ASA DataFest and featured on UWaterloo's website.
- Dissected RMPDS's dataset to explore relationships between cannabis/alcohol usage, and mental health disorders.
- Built a **logistic regression** model to predict disorders in students with an accuracy of **70.73%** helping universities to promote targeted mental health campaigns while reducing diagnosis time by **2 hours**.

NoteSus | *Node.js, Google Cloud Platform*

- Developed a multi-feature **notation web app** with features such as handwriting to text, voice to text, note categorization using **NLP**, and note summarization to about **20%** of original length.
- Implemented voice control features to enhance user experience using **Voiceflow**, and stored notes on **CockroachDB's** secure and scalable database.

Soccer Score Predictor | *Python*

- Studied relationships between goals scored, in-game stats, and external variables in the Premier League.
- Applied **Random Forest Regression** to predict the number of goals scored in matches, conducted Feature Engineering to tune hyperparameters, and obtained R^2 of **70.39%**.