

# PRATISH DULLABH

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I am a computer science/artificial intelligence enthusiast with a passion for using technology to solve problems. I am hardworking, self-motivated, and assertive. I enjoy working with others and building good relationships with colleagues. I constantly display professionalism and maintain my integrity by sticking to the rules of the business. I am always helpful and a good team player. I never give up and I am a go-getter who constantly pushes to achieve the best in whatever I do.

## Education

[University of Cape Town \(Cape Town, South Africa\):](#)

[January 2019 – April 2020](#)

- Honours in B.Sc. Computer Science, GPA: 77

[February 2016 - November 2018](#)

- B.Sc. Computer Science and Business Computing

[Fairbairn College \(Cape Town, South Africa, February 2011 – November 2015\)](#)

## Work Experience

[Data Scientist, Shoprite Holdings \(Cape Town, SA: Jan. 01, 2021 – Present\)](#)

- I was responsible for developing a hybrid-recommendation-engine for the business. The engine consisted of 6 different ALS models each trained on various levels. Business stakeholders were happy with the results and felt that the solution offered additional value. The models were successfully put into production and consumed internally and across digital channels. My role also included assisting with the configs to ensure the models were scalable in production.
- Another and more recent project of mine consisted of creating definitions for whether customers have churned or not from categories. Having thousands of categories with each of them having their own lifecycle, I decided to generate dynamic definitions for each category using clustering. The predictive aspect of this project involved developing a classification model to accurately predict the likelihood of a customer churning within a variable time frame from now. After demoing the results and achieving an accuracy of +-80%, clients were pleased, and the model was productionalized.

[Data Science Intern, Shoprite Holdings \(Cape Town, SA: Feb. 03, 2020 – Dec. 31, 2020\)](#)

- My main project entailed forecasting the demand for articles at different branches. Other projects for the year involved deriving meaningful clusters of customers, stores, and categories based on their price sensitivity. I then presented the results of these models and its impact on the business to the respective clients and received good feedback.

- I was accountable for acquiring the audiences for targeted deals, which contributed to the business receiving over 1 billion Rand in incremental sales within a year.
- Many of Amazon's Web Services were used including EMR clusters and Spark for data processing. Bitbucket, Talend and Control-M were used for continuous integration and deployment.

#### Stock Replenisher, Woolworths (Cape Town, SA: Dec. 04, 2014 – Jan. 03, 2015)

- This was my job during vacation in high school. I was responsible for making sure there was always enough stock on the floor and customers were attended to as quick as possible.
- It taught me to be consistent in whatever I do and to assist wherever I can.

### Extracurricular Activities

#### Class Representative (University of Cape Town: June 2017 – November 2017)

- I was voted to be the class representative for systems development in my 2<sup>nd</sup> year. I was responsible for creating a communication channel between lecturers and students, scheduling exam dates, and dealing with student queries.

### Projects

#### AutoStar: SEMI-AUTOMATED DATA WAREHOUSE CONSTRUCTION

- This was my Honours project; I worked in a team of 2 and I was responsible for semi-automatically creating a star-schema from differently structured source repositories.
- Java was the core language used for this project. I used it to semi-automatically develop the star-schema from both SQL and MongoDB databases. I also defined the ETL process by scripting the entire data pipeline from the source repository to the warehouse containing the generated star-schema.

#### Bid4Cows: an auctioning web application

- This was my Capstone project; our team built a dynamic web application that allows users to buy and sell their cattle in an auction-based environment.
- I worked in a team of 3, I was responsible for the backend and the tools I used were Java, JavaServer Pages, JDBC and SQL.

#### Survival: a 2D 1-Player game + Tetris

- I created my own top-down shooter game and Tetris from scratch using Java and LibGDX.
- For the top-down shooter game I added in basic AI using A\* pathfinding.

### Skills

#### Familiar Technologies/ Frameworks

Java Python C# SQL UNIX Haskell HTML CSS JavaScript React NodeJS ExpressJS JSP  
Hive Hadoop Spark Docker Kubernetes MongoDB LibGDX AWS Machine-learning Redis  
Big data & Analytics

### Languages & Other Skills

English Afrikaans Problem-solving Accountability Leadership Enthusiasm Diligence