

Capstone Homework 1

Arkay Raj

Question 1: Introduction

Arkay Raj (Karan) I reside in Philadelphia, PA, and work as an HR Data Engineer at a staffing firm. I am completing my MS in Data Science at UWF (started 2022) and hold a prior Master's in Construction Management from UIUC. My interests include Machine Learning, Data Engineering, and task automation via the Power Platform.

Karan "RK" Rajkumar

My name is RK, I go by "RK Rajkumar" on Canvas and discord. I reside in Philadelphia, PA and will graduate the MS in Data Science Program at UWF this fall that I've been pursuing since 2022. Prior to UWF I'd obtained a Masters in Construction management from the University of Illinois (UIUC) in 2014/15.

I've had an obsession with Data Science going back over a decade and am thus employed as an HR Data Engineer at a Staffing firm. I've held this position for the last 5 years and have 3 years experience in Data Analytics after this role

My interests include:

Data Science, Machine Learning, task Automation (via Microsoft Power Platform), Data Engineering, AI, Statistics and Econometrics

A portrait photograph of a man with dark hair and a beard, wearing a suit jacket, light blue shirt, and tie. He is sitting outdoors on a bench in a park-like setting with trees and buildings in the background.

Figure 1: Introduction Post

Question 2: Discord Channel

I have joined the course Discord server.

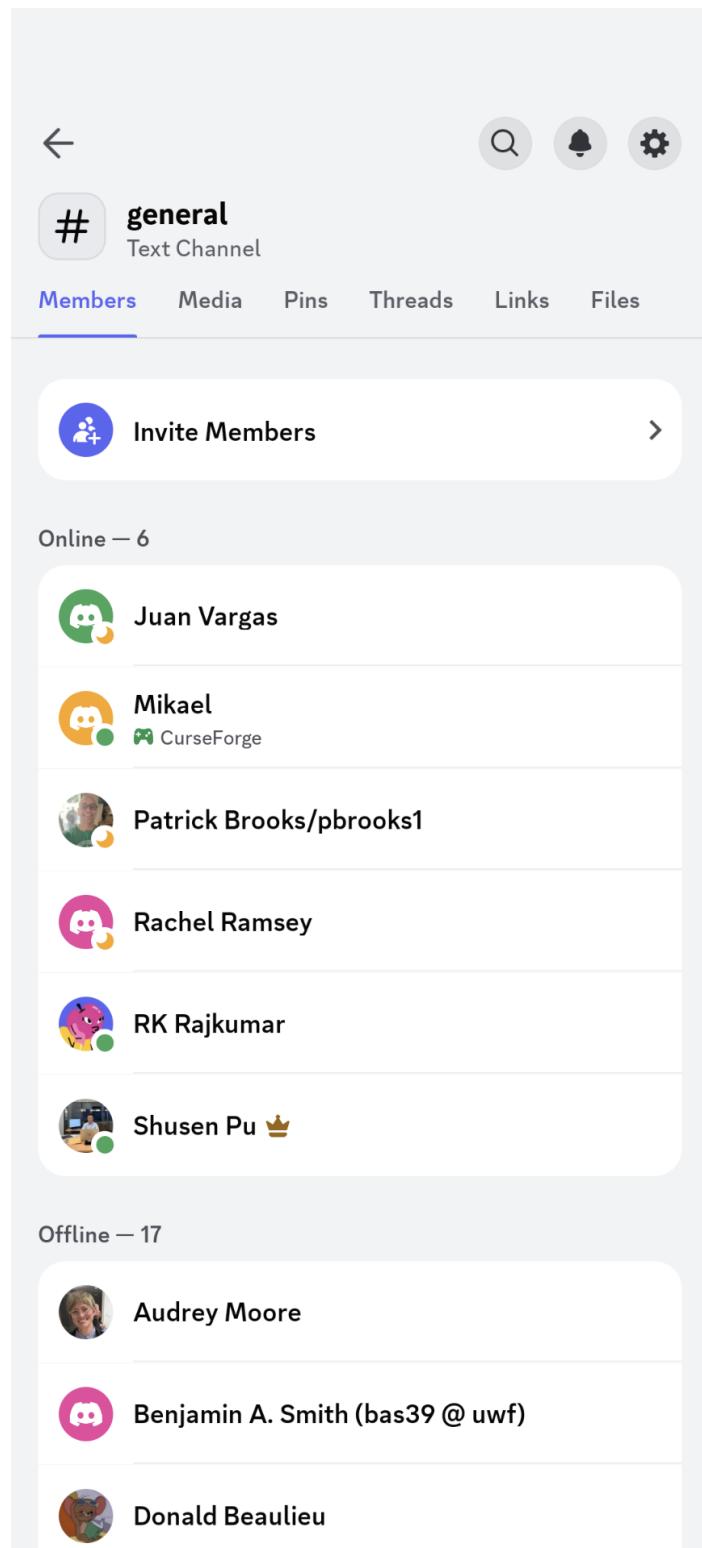


Figure 2: Discord Join

Question 3: Tentative Topic

My tentative topic is **Drivers of Attrition: An Application of the MARS Model**.

I plan to use Machine Learning (Random Forest and Logistic Regression) to predict employee turnover by operationalizing McShane & Von Glinow's **MARS Model** (Motivation, Ability, Role Perceptions, Situational Factors). I will map dataset features to these four pillars to determine which behavioral driver is the strongest predictor of attrition.

Question 4: Google Document

I have added my topic to the shared document.

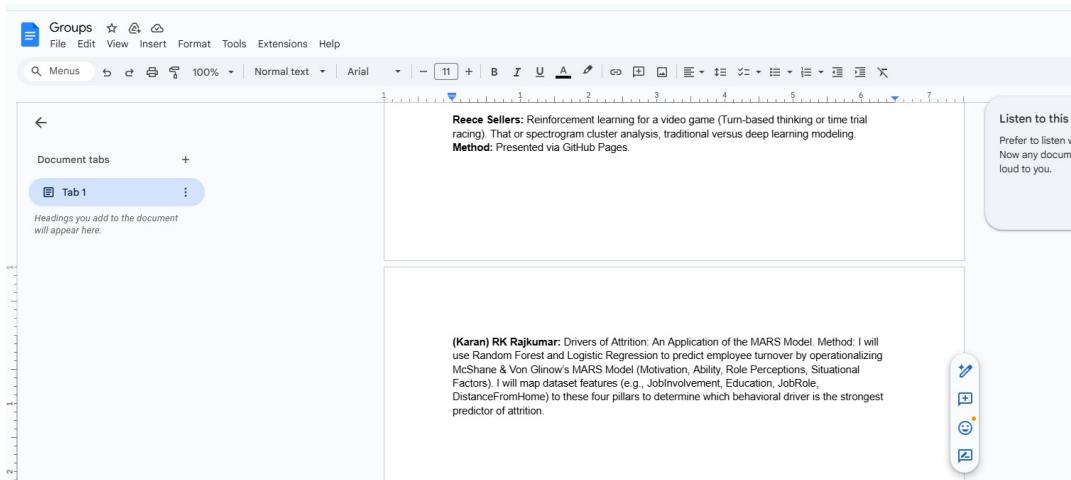


Figure 3: Google Doc Sign-up

Question 5: Reporting Method

I will be using **GitHub** to present my progress and research reports for this course.

Repository Link: https://github.com/RKGithubusa/rk_rajkumar_capstone4ds