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.
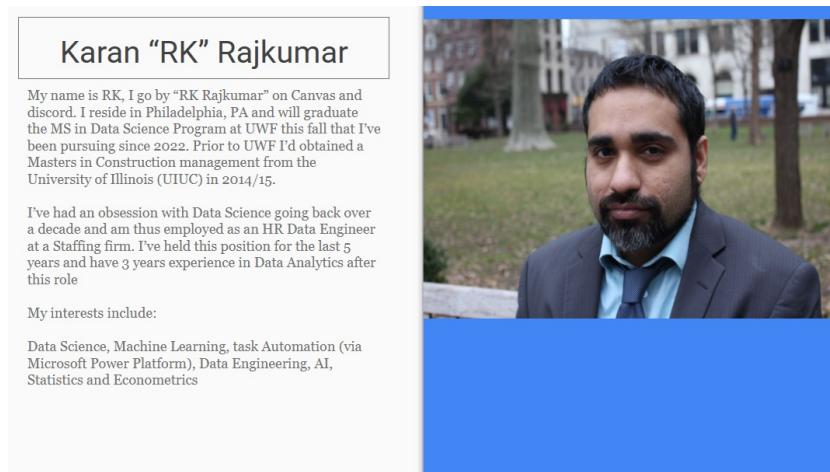

Figure 1: Introduction Post

Question 2: Discord Channel

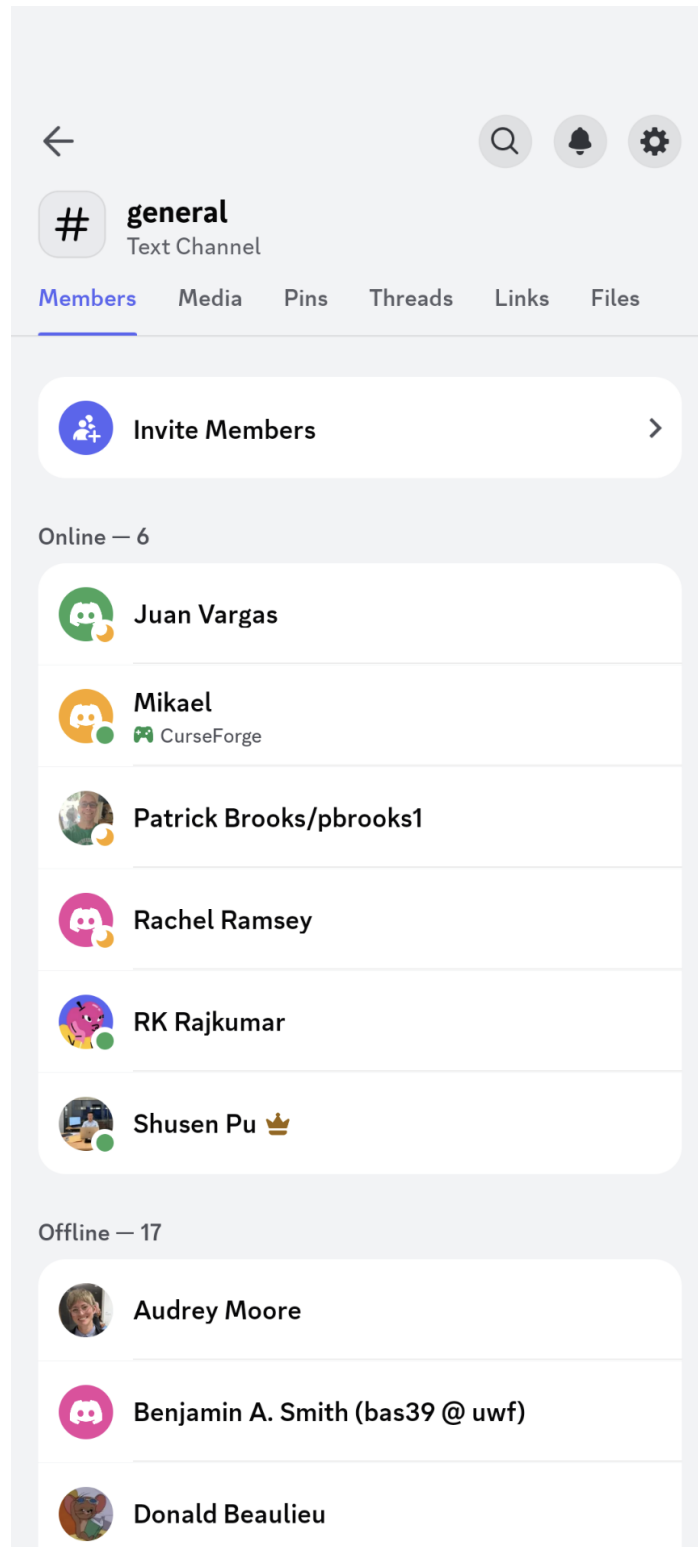I have joined the course Discord server.

general
Text Channel

Members   Media   Pins   Threads   Links   Files

Invite Members   >

Online — 6

Juan Vargas

Mikael
🎮 CurseForge

Patrick Brooks/pbrooks1

Rachel Ramsey

RK Rajkumar

Shusen Pu 👑

Offline — 17

Audrey Moore

Benjamin A. Smith (bas39 @ uwf)

Donald Beaulieu

Figure 2: Discord Join

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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
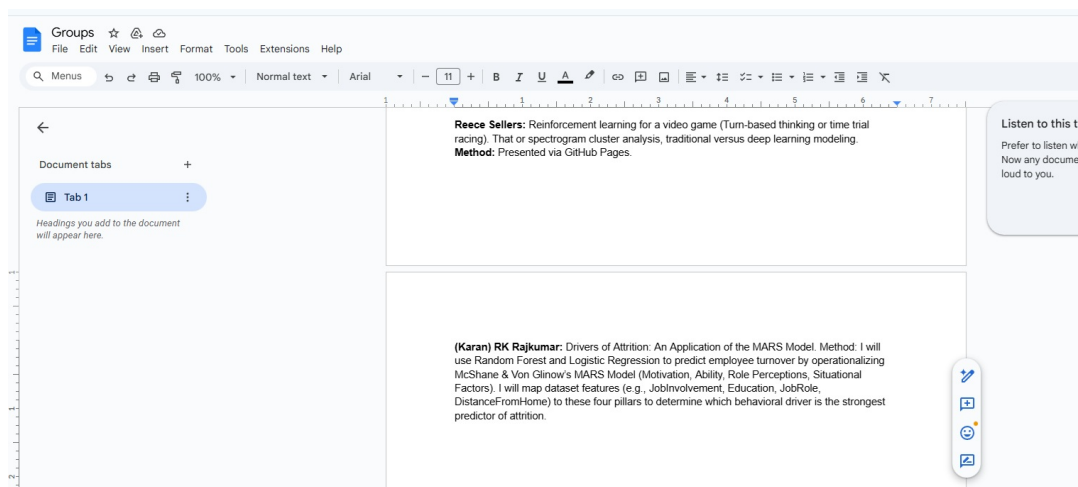
I have added my topic to the shared document.

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