Abhishek A. Mishra

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Education

The University of Texas at Dallas — Richardson, Texas
Bachelor of Science in Computer Science; GPA 4.0/4.0 — *Aug 2020 - May 2023*

Achievements

Academic Excellence Scholarship : Accepted into competitive scholarship with 90 % of tuition paid.
Dean's List: Fall 2020, Spring 2021 : Ranked in Top 10 % in Erik Johnsson School of Engineering and Computer Science
2nd Place at HackReason 2022 : Ranked 2nd among 70 teams of undegraduates and graduates.
ACM Projects Alumni : Accepted into program of 5 % acceptance rate and completed a successful project

Projects

ggshakeR (continual work in progress)
Creator/Maintainer · R, Markdown — *Oct 2021 - Present*

- Pioneered the creation of R's **1st** all-in-one visualization and analysis package for openly available soccer data.
- **Authored 8** functions while working with other contributors, as an open source project, to co-author 3 functions. Functions are compatible with **JSON data and specific APIs** while also supporting the use of **webscraped data**.
- Coded function use cases range from **data wrangling**, **visualization**, and implementation of complicated analysis such as Markov chain analysis (**supervised machine learning techniques** such as clustering are in the process of being added).
- Helped create an official landing page with Github Pages that experiences an average of **800+** views and **100+** unique vistors per week. Initial release and updates invite upwards of **1000+** views on the package.
- Recognized by various open source projects and package aggregators such as **PySport** and **LibHunt** while being one of the **most in-demand packages** in the soccer analytics community.

TimeFlies — HackUTD VIII
Backend Developer · Typescript, PostgreSQL, MikroOrm — *Nov 2021 - Nov 2021*

- **Led the back-end** to create a responsive schedule creator that allowed multiple users to create tasks, rank them, and place them on a dynamic calendar in real-time.
- Constructed a server for the front-end that successfully connected the user's data to a **PostgreSQL database**.
- **Used MikroOrm in TypeScript** to be able to handle data in an object-orientated manner. Scheduler was able to handle upwards of **10** students at the same time.

RISE (Risk Identification and Student Evaluation) — HackReason 2022
Developer · Prolog, s(CASP) — *Jan 2022 - Jan 2022*

- **Led team of 4** to **2nd place finish** by creating an **artificial intelligence model** that allowed teachers and advisors to identify students at risk and deliver a personalized diagnosis for them.
- Utilized **UTD's novel s(CASP)** model to **construct logic** for risk identification and connecting risk identification component to student recommendation system.

SimilarityFinder
Creator · R, ShinyR — *Jul 2021 - Jul 2021*

- Created a portable web application in **ShinyR** to showcase analysis results on publicly available soccer data.
- Created novel new models such as the **Clinical Finishing Model** and used **unsupervised machine learning techniques** along with **dimension reduction** to define a **similarity index**.
- Using **factoextra** and performed a **K-Means Clustering** on self-collected data on soccer players.

Skills

Programming Languages: Java , Python , R , JavaScipt , C++ , TypeScript , Unix , Node.js
Frameworks: ShinyR , ggplot2 , tidyverse , dplyr , knitr , XGBOOST , Caret , Pandas , Matplotlib , Git , Linux , Firebase
Relevant Coursework: Data Structures and Algorithms , Linear Algebra , Probability and Statistics , UNIX , Java
Languages: English , Hindi , Spanish