

# ARSHIYA KHATTAK

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## EDUCATION

### **New York University**

Abu Dhabi, UAE & New York, USA

*B.S. in Computer Science, Minor in Applied Mathematics*

Aug. 2020 – May 2024

Relevant Coursework: Applied Machine Learning, Applied Internet Technology, Projects in Programming & Data Science, Operating Systems, Software Engineering, Algorithms, Data Structures, Linear Algebra, Probability and Statistics

## PROGRAMMING SKILLS

*Language(s)*: **Python** (Including **NumPy**, **Pandas**, **GeoPandas**, **BeautifulSoup**, **NLTK**, **Scikit-Learn**), **JavaScript** (including **Node.js**), **HTML**, **CSS** (Including **Bootstrap**), **C++\C**, **MySQL\PostgreSQL**, **MongoDB**, **Stata**

*Framework(s)*: **React**, **Express**, **NextJS**, **Flask**, **handlebars**, **Jinja**, **Processing**, **RESTful APIs**

## PROFESSIONAL EXPERIENCE

### **Data Science Intern**

Oct. 2022 – Dec. 2022

*NYU School of Professional Studies*

New York, USA

- Scraped online data from university departments' websites and handled database queries in **MySQL**
- Managed and maintained data in **Salesforce** and **Tableau**, analyzing and reporting on admissions and current student information
- Conducted quantitative research to inform decision-making and used **Python** (particularly **Pandas** and **Matplotlib**) to create visualizations for presentations to share with management

### **Web Lead**

Jan. 2022 – May 2022

*The Gazelle*

Abu Dhabi, UAE

- Maintained the full stack for the website ([www.thegazelle.org](http://www.thegazelle.org)) for UAE's biggest college newspaper
- Updated front-end interface with **JavaScript** by using object-oriented **React**

## RESEARCH EXPERIENCE

### **Data Science Research Assistant**

May 2022 – Sep. 2022

*New York University Abu Dhabi*

Abu Dhabi, UAE

- Cleaned and analyzed large, raw geospatial datasets about Afghanistan alongside Dr. Benjamin Laughlin
- Designed linear regression models to analyze and evaluate the effects of different sociopolitical circumstances on violence in Afghanistan
- Visualized and merged Geographical Information System (GIS) data in **Python**, particularly using **Shapely**, **GeoPandas** and **Fiona** libraries

### **Data Science Research Assistant**

Aug. 2021 – Nov. 2021

*New York University Abu Dhabi*

Abu Dhabi, UAE

- Scraped PDFs from an academic journal website and organized them through relevant **Python** data libraries, such as **Pandas** and **beautifulsoup4**
- Extracted data into tabular form and conducted quantitative analysis of the journals and their editorial boards

## PROJECTS

### **PosiTech Website** | [github.com/arshiya-k/PosiTech](https://github.com/arshiya-k/PosiTech)

Oct. 2022 - Dec. 2022

- Led front-end design and back-end development of **Flask** application for improving stock investments through portfolio optimization, sentiment analysis, and price prediction
- Developed a **Long Short-Term Memory Network** model with the **TensorFlow/Keras** libraries and **Yahoo! Finance API**
- Conducted sentiment analysis through the **vaderSentiment** library, with the **News API**, **Twitter API** and **Reddit API** being used to collect data

### **FriendQuest Website** | [github.com/arshiya-k/FriendQuest](https://github.com/arshiya-k/FriendQuest)

Oct. 2022 - Nov. 2022

- Created a social web application for planning trips by using **React** and **Next.js** for the front end and custom backend API, with **MongoDB** databasing
- Leveraged **Google Places API** to create real-time location suggestions based on user input and **NextAuth** to implement user authentication using Google

### **Real Estate Price Predictor** | [github.com/arshiya-k/IslamabadPropertyPrediction](https://github.com/arshiya-k/IslamabadPropertyPrediction)

Aug. 2022 - Sep. 2022

- Implemented web application in **Flask** using a real-estate dataset to predict real estate prices in Islamabad, Pakistan
- Cleaned, manipulated, and visualized datasets by using **Numpy**, **Pandas** and **Matplotlib**
- Implemented linear regression, lasso, and decision tree models by using **Scikit-Learn** and **GridSearchCV**