

# Khawaja Abaid Ullah

Data Science | Machine Learning | NLP

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 KhawajaAbaid

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Computer Science graduate specializing in data science and machine learning (through self-learning). I love building niche and fun projects with the focus on creating value for others, and for self-learning. In the long run, I aspire to work on the democratization of artificial intelligence.

## SKILLS

- **Programming:** Python, JavaScript, C++, C#
- **Data Wrangling:** Pandas, Numpy, Scipy, Statsmodels, NetworkX
- **Visualization:** Matplotlib, Seaborn
- **Machine Learning:** Scikit-Learn, XGBoost, Keras/Tensorflow
- **NLP:** AllenNLP, NLTK, Spacy, Hugging Face
- **Database:** SQL
- **Cloud:** AWS EC2, AWS SageMaker, Google Colab, Kaggle Notebooks
- **Web Scraping:** Requests, BeautifulSoup
- **Others:** Django, PyQt5, Git, OpenCV, Photoshop, MS Office

## EDUCATION

University of Narowal

**Bachelor of Science in Computer Science** (GPA: **3.69/4.0**)

2017-2021

Punjab Group of Colleges, Pasrur

**FSc. Pre-Engineering** (**81.72%** Marks)

2015-2017

Educational Testing Service

**Test of English as a Foreign Language (TOEFL): 110/120** Marks

Sep, 2021

Educational Testing Service

**GRE General Test: (318/340)** Marks

April, 2022

## CERTIFICATES

Harvard University's CS 50

**CS50x 2022 Intro to Computer Science** ([Official Certificate Link](#))

## EXPERIENCE

**Open-Source Developer / Self Employed**

Mar 2021 – Present

- **Prewardict:** An NLP based nerdy game. (<https://khawajaabaid.github.io/prewordict/>)
- **TweetsCloudBot:** A twitter bot that generates word clouds of tweets. ([Bot Twitter Link](#))
- **eBookEZ:** A desktop application that finds meanings and synonyms of English words. ([Github](#))

**Freelance Software Developer / Fiverr**

Oct 2021 - Present

Web Scraping, Automation, GUI-based desktop apps development.

*Projects and more on next page!*

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## PROJECTS

### Crowd Detection and Behavior Analysis / Final Year Project, BS-CS

- Worked on Computer Vision to train Deep Learning models for Person Detection as well as Detection of Certain (similarly attired) Groups among crowd.
- Developed custom algorithms for Chaos Detection and Crowd Detection

**USED:** TensorFlow Object Detection API, OpenCV, Matplotlib, PyQt5, Google Colab

### Gamer Assistant / Addresses the unaddressed needs of gamers

- A website based on Django and consisting of three main components as highlighted below.
- **FPS Predictor v2:** Predicts the expected FPS for a user specified PC for a specified game
  - *Scraped and curated FPS and games data from sites like Steam & Techpowerup.*
  - *Used XGBoost to build the FPS Predictor*
- **Games Recommender:** Recommends games based on user's specified PC
- **PC Recommender:** Recommends PC components based on user's favorite games

**USED:** Django, XGBoost, Pandas, Scikit-Learn, Beautiful Soup, Requests

### Video Games FPS Predictor v1

- Scraped games info and their FPS data from the internet (Steam and other sites)
- Used Random Forest algorithm to build the FPS predictor

**USED:** Scikit-Learn, Pandas, Requests, Beautiful Soup

### Prewardict / A fun little nerdy game (Inspired by Wordle)

- Processed 180,000 medium articles and clustered the similar words
- Generated word clouds from these clusters. Given a word cloud, user has to predict one word that best belongs in the word cloud.

**USED:** Scikit-Learn (TFIDF, SVD, KMeans), WordCloud, Numpy, Pandas, Matplotlib, Kaggle

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## HONORS & AWARDS

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|--|-----------|
| • <b>Topper Computer Science Class of 2021</b> / University of Narowal                               | July 2021 |
| • <b>3<sup>rd</sup> Place Heart Disease Prediction Competition</b> / <a href="#">Kaggle</a>          | June 2022 |
| • <b>Placed 206<sup>th</sup>/693: Tabular Playground S03 E01 - Jan 2023</b> / <a href="#">Kaggle</a> | Jan 2023  |

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## ACTIVITIES

I'm always in the pursuit of learning. I participate in Kaggle Competitions. I love books, coding, gaming, F1 and jogging.