

Abdulrahman Alshahrani

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EDUCATION

The University of Texas at Austin, Austin, TX

May 2025

Bachelor of Science in Computer Science, GPA 3.6/4.0

Relevant Coursework:

- Machine Learning:
 - o Explored techniques for data preprocessing, feature engineering, and dimensionality reduction using **scikit-learn** and **pandas** in Python.
 - o Implemented several machine learning algorithms including Decision Trees, Linear Regression, Nearest Neighbor, and Naive Bayes as part of several mini projects in class.
 - o Utilized cross-validation and ensemble methods to better measure performance and improve accuracy.
 - o Displayed the datasets and model results in various graphs using **matplotlib**.
- Linear Algebra, Discrete Math, Probability, Software Engineering, Object Oriented Programming, Algorithms, Data Structures, Computer Architecture, Operating Systems

SKILLS

- **Programming Languages:** Python, JavaScript, TypeScript, C++, C, Java
- **Tools and Frameworks:** React, Figma, Amplify UI, Docker, Git, Gitlab, Selenium, CI/CD, Linux, Webflow
- **Spoken Languages:** Arabic (Native), English (Fluent)

EXPERIENCE

Software Engineering Class, UT Austin, Austin, TX

January 2024 – Present

Undergraduate Course Assistant

- Supervise **6** student groups in developing full-stack websites, guiding them with project architecture design.
- Review and provide feedback on **+30** weekly student blogs, monitoring their progress and challenges, and reporting summaries of them to the professor.
- Conduct weekly office hours to assist students with understanding course concepts and fixing technical issues.

Summer Undergraduate Research Experience, USC Viterbi, Los Angeles, CA

June 2022 – August 2022

Research Intern – Data Science Lab

- Implemented the Canonical Polyadic (CP) Tensor Decomposition algorithm using the Tensor Algebra Compiler library.
- Ran the CP algorithm on arbitrary data, compressing **+90%** of the data while maintaining its statistical significance.
- Presented the CP algorithm and the experiment results in a department-wise symposium.

PROJECTS

California Wildfires, (Repo link: gitlab.com/cs373-group20/idb)

September 2023 – December 2023

- Collaborated with a team of **5** to develop a **React** web application with a **MySQL** relational database, connecting between recorded wildfires, nearby fire protection facilities, and California counties.
- Designed responsive **React** components with modifiable properties, using **Figma** and **Amplify UI**.
- Implemented efficient sorting, filtering, and searching functionality for **+1400** model instances.
- Built a multi-stage **CI/CD** pipeline to run and automate **GUI** acceptance tests using Selenium.

Pintos

January 2023 – April 2023

- Collaborated with a team of **4** to expand the functionality of Pintos, a toy operating system, to implement fundamental features of a modern operating system.
- Developed a priority-based scheduling algorithm for task scheduling, handling priority inversion using priority donation, and implemented a system calls interface for user programs.
- Implemented argument passing via the stack, with optional piping and redirection for terminal commands.
- Designed and implemented a virtual memory system, with support for swap slots in stable memory.

AWARDS

Recipient, KAUST Gifted Student Program (KGSP) Scholarship

August 2020 – Present

- KGSP is a prestigious scholarship awarded by King Abdullah University of Science & Technology (KAUST) to a select group of Saudi students allowing them to pursue undergraduate degrees in STEM fields in the US.