

SAYOK BOSE

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EDUCATION

Texas A&M University

College Station, TX

Bachelor of Science in Computer Science; Minor in Mathematics; Minor in Statistics

May 2026

RELEVANT COURSEWORK

- Linear Algebra
- Differential Equations
- Engineering Calculus III
- Principles of Data Science
- Computer Organization
- Data Structures and Algorithms
- Honors Discrete Structures
- Machine Learning
- Design and Analysis of Algorithms

TECHNICAL SKILLS

Languages: Python, Java, HTML/CSS, JavaScript, C++, PHP, SQL

Technologies/Frameworks: Git, React, React Native, ThreeJS, Ajax, Flask, CakePHP, Firebase, PyTorch, TensorFlow, Sklearn

EXPERIENCE

Texas A&M Computer Science & Engineering

Aug 2024 - Current

Research Assistant, Multi-Agent Reinforcement Learning

College Station, TX

- Collaborating with Professor Yi Zhou on advanced research in multi-agent reinforcement learning, focusing on developing and optimizing algorithms for cooperative and competitive agent environments.
- Participating in the development and testing of deep neural networks within simulation environments for multi-agent learning tasks.

Berkeley Spring Instruments

May 2024 - Aug 2024

Software Intern

Frostburg, MD

- Developed Web UIs: Designed and implemented a web user interface using CakePHP, integrated with Ajax and MySQL for dynamic data handling and improved user experience. Includes a detailed simulation of pipe flow using Three.js .
- Constructed Unreal Engine 5 Simulations: Built advanced pipe flow simulations using Unreal Engine 5, providing high-fidelity visualizations and interactive features.
- Trained Models: Developed projects involving unsupervised and generative AI as well as Deep Learning, utilizing sensor data to develop predictive models and enhance system automation for pipe monitoring. Developed neural network models to predict sludge formations, analyzing results with gradient mapping and testing to determine optimal data forms and model types.

Sonomatic

Jun 2023 – Aug 2023

Software Engineer Intern

Houston, TX

- Lead software developer on the Joint Large Standoff Magnetometry Research Project, an emerging non-intrusive passive geo-magnetization flux leakage measurement technology to detect pipeline anomalies.
- Developed user-friendly software using Python for efficient data scraping from magnetometers, using various libraries for data visualization such as graphs and 3D meshes.

PROJECTS

Aggie Marketplace: | React Native, Firebase

May 2024

- Developed a mobile application using React Native and Firebase, providing a platform for students to buy and sell textbooks, game tickets, and other miscellaneous items. The app features a secure login system, enabling users to create accounts and manage their listings. Users can view posts, chat, and request direct messages to negotiate and finalize transactions. The integration of Firebase ensured real-time data synchronization and secure data storage, enhancing the overall user experience and reliability of the platform.
- Currently filing for an LLC to formalize the Aggie Marketplace platform as a legal business entity, in order to scale the project and provide a robust service to the student community.

ResumeBuilder | Python, HTML, JavaScript

March 2024

- Developed an innovative Flask-based application that leverages machine learning to analyze resumes and automate the job application process. The program employs web scraping techniques to extract key information from job postings, then utilizes OpenAI's language models to generate tailored, formatted resumes for each application.

NBA Prediction Model | Python

Feb 2024

- Utilized web scraping techniques to gather comprehensive NBA game data, extracting player and team statistics for analysis. Leveraging Python and data manipulation libraries, I engineered features such as player performance metrics and opponent statistics to develop predictive models for forecasting player performance.

AWARDS

Brown Scholar

Feb 2022-Current

Craig and Galen Brown Foundation

Texas A&M University

- The Craig and Galen Brown Foundation scholarship, which, along with the National Merit Finalist President Endowed Scholarship, gives me a full ride, \$ 100,000+ scholarship to attend A&M, was awarded to me for demonstrating high academic achievement along with being a National Merit Finalist, involvement in extracurricular activities and community service, leadership, and excellent people and communication skills.

INVOLVEMENT

Hindu Heritage Youth Camp

Aug 2021 - Current