# **Zach Cramer**

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#### **EDUCATION**

## The University of Texas at Austin

Austin, TX

B.S. in Computer Science

*May 2025* 

- GPA: 3.6
- Relevant Coursework: Computer Architecture, Operating Systems, Machine Learning, Algorithms, Data Structures, Discrete Math, Probability, Statistics, Multivariable Calculus, Linear Algebra
- Honors & Awards: Dean's List
- Organizations: Texas Blockchain Engineering, Texas A4C

#### **SKILLS**

Languages: Java, C++, C, Python, JavaScript, Swift, Solidity, SQL

**Technologies:** React, Node.js, Git, Scikit-Learn

## **EXPERIENCE**

May 2023 - August 2023 Amazon SDE Intern Sunnyvale, CA

Software engineer on the Alexa Mobile team, working on services to improve and streamline the tracking of over **80 billion** metrics per day.

**HID Global** July 2022 - September 2022

Software Engineer Intern

Austin, TX

- Worked on a project to **reduce production time** of radio frequency readers over **30 percent** by automating the timing of the production cycle. This was done using a Python script that implemented an automatic timer displayed on a GUI, and then reported the time to the company database.
- Collaborated with international engineers to fix the *Saturn*, a machine responsible for **20 percent** of RFID tag production at the Austin location.
- Followed the Agile Scrum methodology, wrote and debugged scripts that directly impacted production.

iD Tech June 2022 - August 2022

Online Instructor

Austin, TX

- Led a virtual class teaching **Java**, C++, Calculus, and K-12 math topics.
- Planned and integrated lesson plans, provided real time examples and projects in Java and C++.

### **PROJECTS**

#### **Bankruptcy Prediction**

- Employed Neural Networks, Decision Trees, Random Forests Ensemble, and ADABoost Classifier to determine whether or not a company will go bankrupt. Predicted bankruptcy with 97% accuracy through feature engineering and proper data cleaning.
- Languages/Technologies: Python, Scikit-Learn

## **Huffman Compression**

- Built a lossless compression algorithm with a Graphical User Interface that uses a variety of canonical data structures (binary trees, priority queues, hashmaps) to compress and decompress files.
- Languages/Technologies: Java, Java FX

## **TCP Networking**

- Implemented the TCP networking protocol to ensure reliable messaging on an unreliable network. Employed Reed-Solomon error correction to account for bit flips and bit loss, used a Caesar Cypher to encrypt/decrypt
- Languages/Technologies: C++

## **Ext2 File System**

- Developed a fully functional ext2 file system for Linux Kernel. The system displays pertinent file metadata and decreases average disk seek time by storing relevant files in adjacent blocks.
- Languages/Technologies: C++