# **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, Algorithms, Machine Learning, Data Structures, Discrete Math, Probability, Statistics, Multivariable Calculus, Linear Algebra
- Honors & Awards: Placed first at Jane Street Puzzle City, Dean's List
- Organizations: Texas Blockchain Engineering, Texas A4C

#### TECHNICAL SKILLS

Tech-Stack: Java, C++, C, Python, JavaScript, Typescript, Swift, MySQL, MongoDB

Technologies: React, Node.js, Git, Scikit-Learn, AWS Lambda, AWS S3

### **EXPERIENCE**

Amazon

May 2023 - August 2023

Sunnyvale, CA

Software Development Engineer Intern

- Developed a full stack web app (React, Typescript, Java), centralizing data access and analysis, used by **100**+ **partner teams** in production.
- Optimized viewing for Anomaly Detection, integral to monitoring the health status of over **80 billion** metrics per day.
- Innovated lambda integration for swift S3 data extraction, accelerating real-time visualization.
- Implemented **search functionality**, empowering users to efficiently navigate and leverage data insights.
- Collaborated cross-functionally with various teams, including UX designers, backend engineers, and data scientists, ensuring a holistic and user-centric approach to application development and data visualization.

**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

• Planned and integrated lesson plans, provided real time examples and projects in Java, C++, and Calculus.

#### **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 packages.
- Languages/Technologies: C++