

Dinesh Polisetty

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EDUCATION

The University of Texas at Austin - *Bachelor of Science in Computer Science; Minor in Business*

May 2025

GPA: 3.70

Relevant Coursework: Data Structures, Algorithms, Computer Arch, Autonomous Robots, OS, Networks, Game Theory, Computer Vision, Statistics, Machine Learning 1/2, OOP, Compilers

Activities: Autonomous Mobile Robotics Laboratory (AMRL), UTPC, Freetail Hackers, ACM, Catan Club

EXPERIENCE

York Space Systems - *Incoming SWE Intern*

Sep 2024 - Dec 2024

J.P. Morgan Chase - *SWE Intern on Payments Team*; Austin, TX

June 2024 - Aug 2024

- Engineered a multithreaded Python microservice for data extraction/transformation with streaming over a TCP connection from/to S3 buckets to reduce the processing time of ~80 GBs of daily ACH records by 60%
- Handled reconciliation between internal and external records of client transactions concurrently through subscribing to and consuming Kafka events
- Migrated a REST API to gRPC and changing the handling of data from a JSON format to Protobufs

J.P. Morgan Chase - *SWE Intern on Securities Services Team*; Plano, TX

June 2023 - Aug 2023

- Created a dashboard in Angular to monitor market data trends related to volatility, trade volume, and moving averages for ~5M entries, aiding commodity traders
- Architected REST APIs in Spring Boot to efficiently retrieve/update records in a MySQL database
- Worked on security in identity management and authentication with Kerberos and OAuth
- Reduced build times for team repositories by 15% by deploying Gradle Enterprise on Jules

CBORD - *Software Engineer Intern*; Dallas, TX

May 2022 - Aug 2022

- Created and embedded a face detection model using the Face-api JavaScript library into CBORD's internal website allowing clients to approve student photos without the need for manual photo approval
- Implemented an automated logging and monitoring system with Python and AWS CloudWatch

Research Initiative at UT Austin - *Autonomous Robots Research Assistant*

Jan 2022 - Present

- Constructing a machine learning model that can predict where a person points using OpenPose, C++, ROS
- Programmed Face-ID, navigation, and depth estimation systems with ROS to allow a robot to identify individuals and lead them from source to destination using Tensorflow, OpenCV, and Pandas
- Improved a conflict-based search algorithm to succeed with constrained environments and social forces

Freetail Hackers - *Technical Lead* - Merge

Jan 2023 - Present

- Building a Tinder-like matchmaking service for hackathons and deployed at HackTX, LaHacks, and RowdyHacks
- Created a swipe page using React where hackers can swipe on others and utilized Socket.io for chat capability
- Developed a predictive neural net model to find the best users to match

PROJECTS

Audiscribe | Python (HuggingFace), OpenAI Whisper

- Developed an LDA model trained on 1500+ podcast episodes to generate chapter titles for podcasts
- Utilized Whisper to transcribe audio files and a TextTiling algorithm for text segmentation

ParallelLyrics | C++, CUDA, oat++, Python, React

- Developed a web application to allow users to search for songs containing a particular lyric
- Lyrics scraped from Lyrics Depot using Scrapy with some postprocessing and loaded into an SQLite database
- Frontend written in React and the application is served with the oat++ web framework

ChessEval | Swift, Python, Tensorflow, Firebase

- Designed an iOS app that can take a photo of a real-life chess game and inform the user who is winning
- Used a Tensorflow CNN model to digitize the chessboard and utilized a Stockfish library to analyze positions

SKILLS

Languages: Java, Python, C, C++, JavaScript, Typescript, HTML, CSS, SQL, Go

Frameworks/Tools: Spring Boot, React, Angular, Express, Node, Django, Git, Docker, Kubernetes, PostgreSQL, MongoDB

Concepts: Backend, Frontend, Microservices, Agile, Cloud Computing, System Design, RDBMS, NoSQL, Fintech