

Jaejin Cha

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Education

Texas A&M University - Class of 2024 **GPA:** 3.37

Bachelor of Science, Major in Computer Science, Minor in Mathematics

Relevant Courseworks: Program Design and Concepts, Data Structures and Algorithms, Discrete Structures for Computing, Computer Organization, Intro to Computer Systems, Programming Languages, Database Systems, Design and Analysis of Algorithms, Principles of Statistics I, Principles of Statistics II, Linear Algebra, Differential Equations

Experiences

The CAR Lab, University of Delaware

Advisor: Weisong Shi

NSF REU Researcher

Jun 2023 - Aug 2023

- Conducted research on Electric Autonomous Vehicle Platform for Sustainable Intelligent Transportation System by training an AI model to achieve energy efficiency
- Received \$6000 stipend grants to conduct research over 10 weeks at the Connected and Autonomous Research Laboratory (CAR Lab) under an advice from Weisong Shi, Chair of the Department of Computer and Information Science at the University of Delaware
- Researched on Energy Efficient Autonomous Driving AI and published on IEEE

Texas A&M University

Advisor: Khanh Nguyen

Undergraduate Researcher

Jan 2023 - May 2023

- Conducted research on the impact of memory overuse/underuse of Resilient Distributed Datasets (RDD) on performance degradation in Apache Spark
- Wrote Python Script and Bash Script to collect and parse Garbage Collection logs to compare performance difference between different configuration settings within the same Spark applications
- Set up Spark Cluster and HDFS and their environment settings on Linux clusters

Aggie Research Program, Texas A&M University

Advisor: Khanh Nguyen

Aggie Research Scholar

Sep 2022 - Dec 2022

- Conducted research on the Graph Mining Systems in Peregrine by testing different types of patterns on real data graphs
- Implemented the source code of Peregrine to enable it to convert data graphs with multiple labels to binary formats

Texas A&M SEC Directed Internship

Intern

Jun 2022 - Aug 2022

- Worked with a start-up company, Arkisys, that Texas A&M Student Engineers' Council (SEC) linked up.
- Developed a Front-end Website for the company's GUI that fits the desire of the company

Projects

Portfolio Website

Full Stack Web App deployed on MongoDB Atlas and AWS with a custom domain name as a portfolio website using React, Express, Node, MongoDB, and Bootstrap

Social Calendar

Full Stack Web App in Database Systems class practicing CRUD operations on SQL database using React, Express, Node, MySQL, Bootstrap

Flight Catcher

Hackathon Project with React and Django

Memory Game

Functional Webpage using JavaScript

Technical Skills

Languages Python, C++, JavaScript, Java, SQL, Bash

Frameworks React, Express, Node, Django, MongoDB, Tensorflow, Apache Spark, HDFS

Tools Git, AWS, MongoDB Atlas, Visual Studio Code, Linux, Vim