

# PRAHALAD ANAND

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## OBJECTIVE

Results-driven high schooler with a passion for software development and a focus on artificial intelligence and machine learning.

## EDUCATION

### Vista Ridge High School

August 2022 - Present

- LISD Distinguished with Honors
- Current GPA: 3.94
- Member of Spanish Honors Society
- Endorsements in Multidisciplinary, Arts and Humanities, and STEM

## RESEARCH EXPERIENCE

### Algoverse AI Research

July 2024 - December 2024

*Machine Learning and Data Scientist Researcher*

- Worked under Kevin Zhu and George Flint as the lead programmer for a team of 4 others in order to research the effects of combining K-Shot and GAN techniques to produce accurate synthetic datasets with PyTorch, Scikit-learn, and Tensorflow
- Identified, processed and cleaned data, created and trained BERT model used in determining the accuracy of our synthetic dataset, and developed K-Shot method testing it's effectiveness of several LLMs
- Prepared a paper based on our findings which was accepted to the 2024 SoCAL NLP Symposium

### Inspirit AI Research

June 2024

*Machine Learning and Data Scientist Researcher*

- Worked under Jared Greene while collaborating with 6 others to develop a Convolutional Neural Network in order to detect early signs of colorectal cancer with Scikit-learn and Tensorflow
- Identified, processed and cleaned data and fine tuned model layers while using several data analysis techniques
- Presented our findings to over 50 peers and experts in the field

## TECHNICAL SKILLS

**Languages:** Python, Java, SQL, Javascript, Rust, R

**Frameworks:** React, Next, Vue, Flask, Django, PyTorch, Tensorflow, Scikit-learn

**Tools & Platforms:** Git, Docker, AWS, Google Cloud, Firebase

**Design:** Canva, LaTeX, Overleaf, Figma

## SOFT SKILLS

- Strategic planning
- Resource optimization
- Project and vendor management
- Communication and interpersonal skills
- Team leadership
- Adaptability
- Time management

Fluent in **English**, Conversational Proficiency in **Spanish**, Conversational Proficiency in **Kannada**

## COURSES

- Computer Science 1
- AP Computer Science Principles
- AP Computer Science A
- Advanced Computer Science III
- Advanced Chemistry
- Advanced Biology
- AP Physics 1
- Algebra 2
- Geometry
- Precalculus
- AP Calculus AB
- AP Calculus BC
- Data Science with Python - Berkeley

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## EXTRA CURRICULAR ACTIVITIES

### DECA

August 2022 - Present

- Responsible for the development of strategic plans for major brands such as State Farm which was expected to generate more than \$14 million in revenue
- Facilitated collaboration between leaders of international corporations in order to better the workplace environment while increasing employee productivity
- Competed at the regional level in Hospitality and Tourism Operations Research
- Competed at the regional and state level in Financial Operations Research

### Violin Musician

2015 - Present

#### Orchestral • Chamber • Solo

- Solo violinist for over a decade organizing and performing more than 20 recitals
- Collaborated with over 40 musicians as concertmaster and 1st Chair Violinist in Advanced School Orchestra for over 3 years
- Led a group of 15 musicians in a chamber setting as principal violinist organizing monthly recitals and composing arrangements
- Held charity recitals during the pandemic as lead violinist and composition arrangement organizer for a quintet
- Lead violinist of a quartet for more than 2 years in collaboration with the Northwest School of Music and Velocity Music Academy

### ChromaCare

December 2024 - Present

#### CFO/Founding Member

- Aided in developing an innovative bandage that automatically detects wound infections winning several national competitions
- Built a Next.js website with TailwindCSS to showcase the technology and explain the bandage's design in depth
- Participated in the Blue Ocean Entrepreneurship Competition, the Texas A&M McFerrin Ideas Challenge, and the InnovatorsWorks Pitch Competition

### Science Fair

#### A Novel Application of AI to Optimize Carbonaceous

December 2024

#### Zeolite Structures for Gas and Water Purification

- Developed a machine learning model using Pytorch and Pandas in order to accurately predict the optimal structure of Zeolites for multiple use cases

#### The Use of Deep Learning Algorithms and Linear

December 2023

#### Discriminant Analysis to Detect Early Signs of Penicillium

#### in Citrus Sinensis

- Lead a team of 3 in creating a machine learning model using OpenCV and Tensorflow to analyze images of citrus sinensis at a cellular level in order to detect early signs of Penicillium

#### Brine Shrimp: What is the ideal amount of salt needed to grow them as fast as possible?

December 2022

- Determined the optimal amount of sodium chloride in the environment in which brine shrimp grow in order to accelerate growth and speed up hatching

### Hackathons

#### UBC-OCEAN - Kaggle

September 2023 • PyTorch, Pandas

- Lead programmer within a team of 5 in order to develop a machine learning model classifying types of breast cancer based on images provided within a dataset
- Focused on data collection and cleaning using Pandas and PyTorch in order to augment images to allow our model to train effectively

#### Pool - Uber Hackathon

August 2023 • Flask, MySQL

- Lead programmer organizing a team of 4 in order to create and implement a web application which allowed users to create carpools with other users with the primary goal of decreasing environmental impact
- Setup routing between the backend and the frontend with Flask and connected the MySQL database with the application

<b>EXTRA CURRICULAR ACTIVITIES (CONT.)</b>	<b>Hackathons (cont.)</b>	
	<b>CarbonWatch - TechXcelerate</b> <b>July 2023 • Flask, MySQL</b> <ul style="list-style-type: none"> <li>Lead programmer organizing a team of 4 in order to create and implement an algorithm which calculated a person's carbon footprint and gave recommendations based on their lifestyle</li> <li>Setup the connection between the Flask backend and the MySQL database and provided calculations integral to developing the algorithm</li> </ul>	
<b>COMMUNITY SERVICE EXPERIENCE</b>	<b>Hill Country Community Ministries Thrift Store</b> <b>July 2024 - Present</b> Volunteer 66 Hours <ul style="list-style-type: none"> <li>Managed the supply of clothes and toys for lower income families while preparing, cleaning, and stocking inventory</li> <li>Implemented novel categorization system for toys and clothes increasing efficiency and productivity by over 300%</li> </ul>	
	<b>Sri Shirdi Sai Baba Temple of Austin</b> <b>August 2023 - Present</b> Volunteer 78 Hours <ul style="list-style-type: none"> <li>Provided food for temple visitors after prayer</li> <li>Audio technician for organized shows within the temple</li> <li>Developed method for maintaining flow of traffic in order to avoid parking jams and overcrowding in the parking lot</li> </ul>	
	<b>Kumon</b> <b>August 2023 - December 2023</b> Volunteer 80 Hours <ul style="list-style-type: none"> <li>Assisted children for subjects such as math, history, english, and science</li> <li>Tutored children on higher level math concepts such as calculus, algebra, and geometry</li> <li>Maintained cleanliness and organization of workspaces both indoors and outdoors</li> </ul>	
	<b>Kumon</b> <b>January 2024 - August 2024</b> Assessment Evaluator 100 Hours <ul style="list-style-type: none"> <li>Evaluated and verified student work for accuracy and comprehension on higher level math and english concepts</li> <li>Aided in the evaluation of level assessments for local Kumon branches</li> </ul>	
<b>WORK EXPERIENCE</b>		
<b>AWARDS AND CERTIFICATIONS</b>	<b>Blue Ocean Competition Finalist</b> <b>May 2025</b>	
	<ul style="list-style-type: none"> <li>Top 10 team globally, 3rd place in North America out of 13,000 teams</li> </ul>	
	<b>Texas A&amp;M McFerrin Ideas Challenge Finalist</b> <b>April 2025</b>	
	<ul style="list-style-type: none"> <li>Top 40 team within the state of Texas out of 2,600 teams</li> </ul>	
	<b>InnovatorsWorks Finalist</b> <b>March 2025</b>	
	<ul style="list-style-type: none"> <li>Top 10 team nationally out of 1,200 teams</li> </ul>	
	<b>4rd Place Regional Science Fair</b> <b>February 2025</b>	
	<ul style="list-style-type: none"> <li>Awarded with the 4rd place award at the Greater Austin Regional Science and Engineering Fair in materials sciences</li> </ul>	
	<b>DECA District Champion</b> <b>January 2025</b>	
	<ul style="list-style-type: none"> <li>Financial Operations Research District Champion</li> </ul>	
	<b>AP Scholar with Distinction Award</b> <b>July 2024</b>	
	Collegeboard Award of Distinction	
	<b>Inspirit AI Scholars Certificate</b> <b>June 2024</b>	
	Inspirit AI	
	<b>Travel Through Time Honors Recital Certificate</b> <b>March 2024</b>	
	Velocity Music Academy • Northwest School of Music	

**AWARDS AND  
CERTIFICATIONS  
(CONT.)**

<b>Texas State Science Fair Finalist</b>	<b>March 2024</b>
<ul style="list-style-type: none"><li>• Recognized as a State Finalist at the Texas Science and Engineering Fair in microbiology</li></ul>	
<b>1st Place Regional Science Fair</b>	<b>January 2024</b>
<ul style="list-style-type: none"><li>• Awarded with the 1st place award at the Greater Austin Regional Science and Engineering Fair in microbiology</li></ul>	
<b>Blue Ribbon Finalist</b>	<b>January 2024</b>
<ul style="list-style-type: none"><li>• Awarded as a Blue Ribbon Finalist at the Greater Austin Regional Science and Engineering Fair in microbiology</li></ul>	
<b>DECA Regional Finalist</b>	<b>January 2024</b>
<ul style="list-style-type: none"><li>• Hospitality and Tourism Operations Research Regional Finalist</li></ul>	
<b>For the Love of Music Honors Recital Certificate</b>	<b>March 2023</b>
Velocity Music Academy • Northwest School of Music	
<b>3rd Place Regional Science Fair</b>	<b>January 2023</b>
<ul style="list-style-type: none"><li>• Awarded with the 3rd place award at the Greater Austin Regional Science and Engineering Fair in plant sciences</li></ul>	