ESHAN IYER

Developer| Data Scientist | National Merit Finalist | Entrepreneur | Black Belt
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Summary

- Researched and built **transformer-based** AI/ML models for *multi-view 3D computer vision*, advancing perception capabilities for *autonomous vehicles*.
- Hands-on expertise in **Python** (NumPy, Pandas, Scikit-learn, etc.), with advanced knowledge of **Java** and **HTML**; proven ability to lead teams and deliver complex projects successfully.
- Deployed commercial **digital and mobile capabilities**, including end-to-end development of a personal website.
- Strong **entrepreneurial skills** from **multiple startup and leadership experiences**

Skills

Artificial Intelligence | Computer Vision | Machine Learning | Python | TensorFlow/Sci-kit Learn | HTML, CSS & Flask | Java | Leadership | Business Development | Financial Planning | Budgeting | Business Operation | Fluent in English & Spanish

Software Engineering Projects

AI Product - Self-Driving Vehicle - Cross-View CenterPoint https://bit.ly/3BIxS0g **Jun 2023 – Sep 2023**

Implemented the innovative CVCP framework, a **groundbreaking approach to 3D object detection**, **combining Cross-View Transformers (CVT) and the CenterPoint object detection model**. This project significantly enhanced object detection accuracy by leveraging multi-camera systems to capture rich visual data from diverse perspectives. The CVCP framework addresses limitations in traditional methods, making it suitable for applications such as autonomous driving, robotics, and augmented reality. Led the team to develop and implement this cutting-edge solution, demonstrating computer vision and ML expertise.

AI Product - Climate Change Water Analyzer https://bit.ly/3Page8G **Oct 2021**

This web app helps combat the problem of wasteful water usage by creating a **heatmap** of places with high water use. I built a project using the Flask framework, with HTML for the front end and Python for the back end. An HTML form collected data and saved it to an SQLite database. My project earned third place out of many contestants.

PLTW Engineering Projects https://bit.ly/425TvTd **Aug 2021 – August 2024**

➔ Developed a **hydrogen fuel cell vehicle** that traveled quickly from solar energy **(2022)**
➔ Built and programmed a **robot elevator** using *VEX* which could ascend and descend to a requested floor **(2022)**

UT Dallas 9 Week AI Bootcamp (Link) Certificate certifying my completion of the UT Dallas 9 Week AI Bootcamp
BPA State Competition: Qualified for the BPA State Competition in the SQL Fundamentals category in 2022
Collin College Hackathon (Link): Secured 3rd place in the Collin College Hackathon
Academic Decathlon/Octathlon: Academic Decathlon and Octathlon and won a multitude of medals in Math and Social Science

Education

- **University of Maryland – Bachelor of Science in Computer Science** **2024 – 2027**
- **Business Student, Young Entrepreneurs Academy, Inc** **Sep 2019 – Mar 2020**
  One of the top 20 students selected Young Entrepreneurs Academy to launch a company through the program with the Chamber of Commerce

Work Experience

- **The University of Texas at Dallas:** Artificial Intelligence Internship **Jun 2021 – Aug 2021 & June 2023 – August 2024**
  Worked on Cross-View Transformer for Bird's Eye View Semantic Segmentation for Autonomous Driving at the University of Texas at Dallas as a summer intern
- **Teaching Assistant, Kumon North America, Inc., Frisco, TX** **Aug 2021 – August 2024**
  Assisted students in accelerating their academics. I had various roles in the organization – I started as a grader and was promoted to instructor in 6 months. Appreciated by the CEO of the business as the most reliable and trustworthy Employee.