

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

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# Summary

- Conducted research and built an AI/ML solution leveraging innovative Transformer technology to provide cross-view 3D computer vision to enable autonomous vehicle
- In-depth, hands-on experience in **Python and its libraries**, especially those about **data science**, and expert knowledge of Java and HTML.; **Proven leader** and leverage leadership skills to lead a team to deliver a project successfully
- Experienced in deploying commercial digital/mobile capabilities, including my website https://eshaniyer.com
- Strong entrepreneurial skills from multiple startup and leadership experiences

#### Skills

Artificial Intelligence | Computer Vision | Machine Learning | Python | TensorFlow/Sci-kit Learn Web, 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 and robustness 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.

https://bit.ly/3BIxS0g

Al 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 used the Flask framework, which used HTML for the front end and Python for the back end. An HTML form took inputted data and placed it into an SQLite database. As a result of my efforts, my project placed third in a large pool of contestants.

Various Engineering Projects <a href="https://bit.ly/425TvTd">https://bit.ly/425TvTd</a>

Aug 2021 - August 2024

- Developed a hydrogen fuel cell mini car that could travel 10 meters quickly on a full solar energy charge. 2022
- Built and coded a robot elevator using VEX to move and return to the ground floor. 2022
- **UT Dallas 9 Week AI Bootcamp** (<a href="https://eshaniyer.com/assets/ai-bootcamp.pdf">https://eshaniyer.com/assets/ai-bootcamp.pdf</a>) 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.
- Colin College Hackathon (https://eshaniyer.com/assets/ai-bootcamp.pdf) Secured 3<sup>rd</sup> place in the Collin College Hackathon.
- Academic Decathlon/Octathlon: Academic Decathlon and Octathlon and won many medals in Math and Social Science

## **Education**

- University of Maryland Bachelor of Science Major in Computer Science 2024-2028 Expected to Graduate in Spring of 2027
- Business Student, Young Entrepreneurs Academy, Inc., Frisco, TX 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 <u>Artificial Intelligence Internship</u> 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.