

# ESHAN IYER

Developer | Data Scientist | National Merit Finalist | Entrepreneur | Black Belt  
[eshaniyer@gmail.com](mailto:eshaniyer@gmail.com) | [LinkedIn](#) | [Website](#)

## 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

Self-Driving Car Algorithm – Cross-View CenterPoint <https://bit.ly/3BlxS0g> Jun 2023 – Sep 2023

Implemented the innovative CVCP framework, a **groundbreaking approach to 3D object detection**, combining **Cross-View Transformer (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.

Open360 – React Native App <https://bit.ly/4lxwTRg> Jun 2025 - Sep 2025

Developed **Open360**, a **privacy-focused location sharing app** built with **React Native**, designed as a lightweight, ad-free alternative to Life360. Prioritized user control through **end-to-end encryption** and a minimal, intuitive UI. Integrated **Leaflet with OpenStreetMap (OSM)** for fully open-source, privacy-respecting map rendering. Used **Cloud Firestore** for real-time location syncing and authentication, delivering scalable backend functionality without compromising performance. Demonstrated expertise in **mobile development**, **privacy-first architecture**, and **open-source geospatial tools**.

Universal E2EE – Chrome Extension <http://bit.ly/4mpilmX>

Developed a **Universal End-to-End Encryption (E2EE) Chrome extension** that enables users to securely **encrypt and decrypt selected text locally** on any website. Leveraged **Chrome Extension Manifest V3**, **Web Crypto API (AES-GCM with PBKDF2 key derivation)**, and **Chrome Storage API** to provide seamless, **serverless encryption** with **domain-specific password management** and **intuitive UI controls**. Implemented **context menus**, **keyboard shortcuts**, and **in-page text replacement** for a smooth user experience.

UT Dallas 9 Week AI Bootcamp ([Link](#)) Certificate certifying my completion of the UT Dallas 9 Week AI Bootcamp (2022)

BPA State Competition: Qualified for the BPA State Competition in the SQL Fundamentals category (2022)

Collin College Hackathon ([Link](#)): Secured 3rd place in the Collin College Hackathon (2021)

## Education

- **University of Maryland – Bachelor of Science in Computer Science** 2024 – 2026  
Participating in the First-Year Innovation and Research Experience (FIRE) program, a faculty-led research initiative focused on providing early exposure to real-world research and innovation. On track to graduate early in December 2024.
- **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

- **Self-Employed** Nov 2022 – Present  
Provided one-on-one academic tutoring in [subjects, e.g., math, computer science], achieving a 100% satisfaction rate from students and parents. Developed customized lesson plans to meet individual student needs and improve performance

- **North South Foundation**  
Teaching Math, Science and College Readiness
- **The University of Texas at Dallas:** [Artificial Intelligence Internship](#) **Jun 2021 – Aug 2021 & Jun 2023 – Aug 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 – Aug 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. Private Tutor