

Haresh Murugesan

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EDUCATION

The Ohio State University

Columbus, Ohio

Bachelor of Engineering in Computer Science, Specializing in AI, Minor in Business

May 2028

EXPERIENCE

AI and Software Development Intern

May 2026 – August 2026

CAS (Chemical Abstracts Services, ACS)

Columbus, OH

- Engineered agent-based AI and ML Full-stack applications for product stakeholders, utilizing AWS S3 and DynamoDB, and deployed agentic AI workflows utilizing Vector Databases, RAG, and model training
- Streamlined deployment pipelines by using trunk-based development through GitLab with Claude Tools/Agents.
- Contributed to C2/C4 architecture designs, improving cross-functional team development efficiency and quality

Undergraduate AI/ML Researcher

July 2026 – Present

Ohio State University

Columbus, OH

- Working on technical tasks in Digital Pathology using AI/ML methodologies under Dr. Anil Parwani at OSU

Innovation Analyst Intern

May 2025 – Present

Honda Research Institute 99P Labs Onramp Program

Columbus, OH

- Spearheaded market research using lean startup methodologies to find unmet needs with over 1,000+ data models
- Drove product ideation at 99P Labs by forecasting customer trends through statistical analysis and data visuals.

Founder and Interviewer

August 2023 – Present

Syntinuum: Endless Evolutions Podcast

Dublin, OH

- Founded and produced a tech podcast featuring CEOs and tech pioneers, growing the audience to over 8K YouTube views, 75 watch hours, and 50K Instagram views. 1000+ Likes and 50k+ Views on TikTok.
- Made a website using NextJS and unique loaders, animations, scrolls, etc. Found on SyntinuumPodcast.com

PROJECTS

Apexis: AI Motorsports Hub Project | *Next.js, TensorFlow.js, Tesseract.js, Gemini API*

April 2026

- Engineered a multi-threaded Web Worker engine rendering 75K+ 2D track frames without UI blocking.
- Integrated TensorFlow.js neural networks for predictive tire degradation modeling and deployed a client-side Tesseract.js OCR pipeline to extract live standings from broadcasts
- Built a serverless Next.js backend powering a Gemini-driven AI chatbot for context-aware race strategy analysis.

Healios: AI Post-Surgical Recovery Assistant Project | *Tensorflow, NextJS, FastAPI*

Feb 2026

- Engineered a computer vision diagnostic tool utilizing a fine-tuned Segment Anything Model (SAM), achieving 92% accuracy in measuring surgical wounds and outperforming standard edge-detection algorithms by 40%
- Built a responsive Next.js and React web portal, utilizing npm for dependency management.
- Engineered a scalable FastAPI backend to process high-volume machine learning inference requests

NYC Housing Crisis AI and ML Analysis Project | *Sci-kit Learn, Pandas, Numpy*

Jan 2026

- Designed a 3D map utilizing custom CSS and WebGL layers to visualize building density and price disparities
- Implemented Unsupervised Machine Learning (K-Means Clusters) to segment NYC into 5 unique economic zones.
- Coded a "Market Force-Field" model using NumPy gradients to visualize housing price pressure as a vector field

TECHNICAL SKILLS

Languages: Java, Python, C, SQL, JavaScript, TypeScript, HTML/CSS, R, MATLAB, X86-64 Assembly

Coursework: Harvard's Intro to AI with Python, Database Systems, AI/ML Basics, Systems 2, Foundational Math

AI/ML: PyTorch, Tensorflow, OpenCV, RAG, Scikit-Learn, Chroma, LLM, Vectorization, Embedding, HuggingFace

Backend/Infra: FastApi, NextJS, Git/Gitlab, AWS, REST APIs, Docker, SQL,

ORGANIZATIONS AND HONORS

First Place for Best use of External Data: ASA Datafest 2026

First Place for Best use of External Data: ASA Datafest 2025

Top 3 Podcasts in Dublin, OH: *Adapt: Implementing Innovations Podcast*