

Dylan Joseph

Computer Vision & Full Stack AI Engineer

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Denton, TX | Summer internships: Full-time June–July 2027 (remote or relocation)

Available to continue part-time during the school year: 10 hours/week, remote

EDUCATION

University of North Texas (TAMS)

2025 – Expected 2027

Early college program; Computer Science Track; GPA: 4.0/4.0

Denton, TX

- Earned President's List honors in Fall 2025 and Spring 2026; on track for 60+ university credits by 2027.

OPEN-SOURCE CONTRIBUTIONS

oh-my-codex | TypeScript, AI Agent Tooling

2026

- Reduced an AI agent prompt by **33%** and fixed stale worktrees through **two merged upstream commits**.

Omarchy Projects | Linux, Package Manager, VMs for Mac | [PR #195](#) | [PR #331](#) | [PR #769](#)

2026

- Enabled accented typing on Mac keyboards and microphone selection in non-English sessions; repaired tmog-bin update checks across **three merged PRs**.

PRODUCTS AND PROJECTS

AudiLex AI | Student Software Developer; React, Supabase | [Live Site](#)

2025 – Present

- Shipped a course-grounded voice study platform **used by Northwestern Law students**; recruited through alumni to develop the React interface, Supabase retrieval, and real-time voice experience.
- Cut microphone warm-up wait by **85% (1,000 ms to 150 ms)**; reused capture pipelines, prewarmed voice sessions, and moved citations inline based on **student feedback**.

ScamMap | Python, Deepgram, Real-Time Audio | [GitHub](#) | [Demo Video](#)

2026

- Won **2nd place and \$500 at the Finovate Hackathon** for a scam-detection prototype combining live transcription, evidence-backed risk analysis, and repeat-speaker matching.

UNT Grades + VSB | Core Maintainer; TypeScript, Scheduling | [Grades](#) | [VSB](#)

2026 – Present

- Reached approximately **3,400 visitors** and **6,000+ page views** with grade-distribution tools and automated schedule drafting that honors campus, class-time, and lunch constraints.

COMPUTER VISION RESEARCH

Computer Vision Researcher

2025 – Present

University of North Texas; supervised by Dr. Heng Fan

Denton, TX

- Helped build the **1.3M+ frame VQS-4K** benchmark by manually annotating **91K+ video frames**.
- Advancing universal vessel segmentation through **feature extraction, fusion, and multi-feature distillation**.
- Enabled model-assisted annotation by building **TrackGUIv2**, integrating **YOLO/BoTSORT tracking and EfficientSAM** into a LabelMe/Qt interface; managed annotators on a **200K-frame dataset** during a **10-week, full-time paid research appointment** (\$4,000).

Research Intern

Summer 2025

UT Dallas, Computer Vision and Multimodal Learning Lab

Dallas, TX

- Added temporal visual context to sound-source separation by replacing the [Sound of Pixels](#) image backbone with **3D ResNet** and fusing video features early in the audio network.

Audio-Video Understanding Models | PyTorch, Transformers | [UCF-101](#) | [LoCoNet](#)

2025 – 2026

- Achieved **88% average accuracy** on AVDIAR active-speaker detection by adapting LoCoNet with VGGish audio embeddings and bidirectional audio-visual cross-attention.
- Achieved **77% UCF-101 accuracy** with a 2-layer, 8-head temporal transformer; froze the pretrained ResNet-50 backbone to limit training to the feature projection and temporal classifier.

TECHNICAL SKILLS

Languages: Python, TypeScript, Java, C++

Computer Vision: PyTorch, OpenCV, YOLO, segmentation, multi-object tracking

AI Agents & LLMs: oh-my-codex, prompt optimization, RAG, Transformers, real-time voice APIs

Full Stack: React, Supabase, Deepgram, Linux + VMs (Mac)