

# Andrea A. Yanez Soto

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## EDUCATION

New Jersey Institute of Technology (NJIT) – B.S. in Computer Science (Transfer Student from MCC)

Newark, New Jersey  
Expected Graduation: Aug 2027

- Relevant Coursework: Data Structures, Algorithms, Database Systems, Python, UX

## SKILLS

*Languages:* Python, JavaScript/TypeScript, Java, SQL, Node.js, C++

*AI/ML:* PyTorch, TensorFlow, Hugging Face, OpenCV, LangChain, Embeddings, Agentic Systems, RAG

*Web/Backend:* Next.js, FastAPI, Flask, Node.js, REST APIs, MongoDB

*Tools & DevOps:* Docker, GitHub Actions, CI/CD, Azure, AWS, Postman

*Spoken Languages:* English, Spanish, Portuguese, Korean

## PROJECTS

**Recall - Real-time Facial Recognition Memory Aid (Python, OpenCV, Flask, MongoDB, ElevenLabs)**

November 2025

- Winner:** Best Use of Grok (xAI) & Best Use of Arm (MLH).
- Built an edge-deployable face recognition pipeline on Raspberry Pi with <200ms inference latency.
- Designed threshold-tuned embedding matching + data augmentation → 94% precision, <2% false positives.
- Exposed streaming /setup & /recognize endpoints with full OpenAPI docs and unit tests.

**OffScript - AI Technical Interview Simulator (Next.js, TypeScript, FastAPI, Gemini)**

HackHarvard 2025 | October 2025

- Led 4-person team to ship real-time AI interviewer + detailed feedback engine in 36 hours.
- Implemented low-latency WebSocket backend and dynamic Next.js frontend with code editor.

**SONA AI - Real-time Emotion Detection from Voice (TensorFlow, Librosa, FastAPI)**

Jun 2025 – Present

- Engineered live audio ETL + emotion classification pipeline with 30% faster inference via model quantization.
- Currently integrating a genetic reasoning layer for contextual follow-up questions.

**Bikeshare Anomaly Detection Dashboard (SQL + Python)**

September 2025

- Built SQLite analytics database; discovered operational scaling insights via >30-min trip anomaly detection

## RESEARCH AND PROFESSIONAL EXPERIENCE

### NASA

NASA-funded AI Solar Eruption Prediction Research (NJIT × NASA MIRO)

Newark, New Jersey

Researcher

November 2025 - Present

- Selected for the competitive NASA MIRO program under Dr. Qin Li to develop Physics-Informed Neural Networks (PINNs) for 3D coronal magnetic field reconstruction from limited solar observations
- Building foundation models for heliophysics: training multimodal transformers on multi-decade NASA/SDO + SOHO datasets for solar flare/eruption forecasting
- Implementing custom physics loss terms ( $\nabla \cdot \mathbf{B} = 0$ ,  $\nabla \times \mathbf{B}$  constraints) in PyTorch to enforce Maxwell's equations during training

### Apple

Edison, New Jersey

Technical Specialist

August 2024 - Present

- Collaborated directly with Cupertino engineering to resolve escalated macOS/iOS issues
- Mentored peers using structured problem-solving frameworks, increasing team efficiency by ~40%
- Consistently ranked as a top performer among technicians

### Apple

Edison, New Jersey

Training Lead

July 2025 - Present

- Led technical training program that improved launch sales.
- Designed and delivered training curriculum that accelerated tool adoption and improved launch-day sales performance
- Managed and mentored 30+ new technicians per training cycle