

Jossue Sarango

973-274-5136 | jossuesarango1@gmail.com | [linkedin.com/in/jossue-sarango](https://www.linkedin.com/in/jossue-sarango) | github.com/sjossue | jossue.dev

EDUCATION

New Jersey Institute of Technology

Bachelor of Science in Mechanical Engineering, Minor in Electrical Engineering

Newark, NJ

Expected: May 2028

Relevant Coursework: Computer Programming, Circuits & Systems, Dynamics, Strength of Materials, Differential Equations

PROJECTS

Forge: AI-Powered Embedded Development Platform | *React Native, ESP32, PlatformIO, REST APIs*

Feb 2026

- Developed a mobile-first platform enabling **natural-language firmware generation**, allowing users to describe device behavior and automatically generate, compile, and deploy code to **ESP32 microcontrollers**.
- Engineered an end-to-end pipeline integrating **AI code generation, cloud-based compilation (PlatformIO), and secure over-the-air firmware updates**, eliminating traditional IDE and USB-based development workflows.
- Implemented dynamic control interfaces and hardware-aware validation logic, enabling real-time interaction with sensors, actuators, and IoT components directly from a **React Native mobile application**.

DataCool: AI Data Center Optimization System | *Python, scikit-learn, SHAP, Streamlit, Plotly*

Nov 2025

- Collaborated in a **4-person team** to build a machine learning system predicting server rack **thermal hotspots** and optimizing workload distribution across data center infrastructure, achieving **94% prediction accuracy**.
- Developed a constraint-based optimization engine modeling thermal coupling, rack capacity limits, and migration costs to reduce critical overheating incidents by **75%**.
- Implemented an interactive monitoring dashboard using **Streamlit and Plotly** with real-time temperature heatmaps and optimization simulations; project won **1st Place** at the **Claude NJIT Hackathon**.

SHPE NJIT Mobile App | *React Native, Expo, Supabase, TypeScript, Figma*

Jan 2026

- Led a **3-person engineering team** to design and deploy the **first and only** mobile application at NJIT in **27 days**.
- Engineered a scalable backend architecture using **Supabase (PostgreSQL)**, enabling authentication, real-time data services, and support for **user-generated content**, mentorship matching, and alumni networking pipelines.
- Developed Admin Insights and Member Analytics dashboards to track engagement, monitor activity metrics, and improve events.

EXPERIENCE

Regional Public Affairs Intern

May 2025 – Aug 2025

PSEG (Public Service Enterprise Group)

Trenton, NJ

- Served as liaison between **engineering teams and municipal leadership**, supporting infrastructure planning discussions with elected officials and public stakeholders while translating grid reliability considerations to non-technical decision makers.
- Built an integrated **project quality tracking dashboard** for electrical infrastructure (**substations, 69kV circuits**), improving visibility into field performance metrics and enabling feedback loops between engineering, reliability, and operations teams.

Vehicle Systems Engineer

Sep 2025 – Present

Baja Society of Automotive Engineers (SAE) at the New Jersey Institute of Technology

Newark, NJ

- Performed **finite element analysis (FEA)** across **12+ design iterations** to evaluate roll cage performance under 15g front, 10g side, and 8g rear impact scenarios, achieving a **12% weight reduction** while maintaining a **1.5× FoS**.
- Fabricated suspension and chassis components through **MIG/TIG welding**, collaborating with drivetrain and suspension teams to resolve integration issues and ensure vehicle-level structural integrity during assembly.

Webmaster & Software Developer

Sep 2025 – Present

Society of Hispanic Professional Engineers (SHPE) at the New Jersey Institute of Technology

Newark, NJ

- Built the chapter's website from scratch using **React and Next.js**, creating a modern platform that centralizes events, resources, and organizational communication for members, partners, and sponsors.
- Implemented automated event publishing and engagement tracking systems, increasing member interaction by **90%**.

LEADERSHIP

Software Engineering Fellow

Dec 2025 – Present

Management Leadership for Tomorrow (MLT)

Remote

- Selected for a competitive **20-month national fellowship** preparing high-potential technologists through technical interview preparation, system design training, and mentorship from industry engineers.

Vice President of Technology

Sep 2025 – Present

Society of Hispanic Professional Engineers (SHPE) at the New Jersey Institute of Technology

Newark, NJ

- Lead a **5-member engineering team** managing the chapter's digital infrastructure, coordinating development tasks and platform deployments using GitHub-based workflows.
- Established collaborative engineering practices including **version control, pull requests, and issue tracking**, mentoring members in modern software development workflows.

TECHNICAL SKILLS

Programming: Python, TypeScript, JavaScript, HTML/CSS, MATLAB, C++ (Learning)

Frameworks & Tools: React, React Native, Next.js, Expo, Supabase, Git, REST APIs, Linux

Machine Learning / Data: scikit-learn, SHAP, Streamlit, NumPy, pandas, Data Visualization

Engineering Software: SolidWorks (CAD & FEA), AutoCAD, Blender

Hardware & Systems: ESP32, PlatformIO, Embedded Development, Over-the-Air Firmware (OTA)

Languages: English (Native), Spanish (Fluent), Mandarin (HSK 2), Portuguese (Conversational)