

Zayd Krunz

✉ contact@zaydkrunz.com ☎ +1 (312) 767-7180 📍 Tucson, AZ 85704 🌐 <https://zaydkrunz.com>

Education

BASIS Tucson North High School • 3.95 GPA (4.67 weighted)
Tucson, AZ August 2023 - May 2027

- **#1 Ranked** High School in the Nation (*U.S. News & World Report*, 2025-2026)
- **SAT Score:** 1500, **PSAT Score:** 1480, USACO Silver, Codeforces Specialist (1480)
- **Relevant Coursework:** AP Physics C (enrolled), AP Calculus BC, AP Computer Science A, AP Chemistry

Experience

LOCH Technologies Emeryville, CA
SWE Consultant July 2026

- Architected an ML-based User Equipment (UE) detection framework for the AirShield product, utilizing Software-Defined Radios (SDR) to identify unauthorized mobile devices in highly regulated environments.
- Trained and validated predictive machine learning models for RF signal classification, engineering the pipeline to ingest, process, and evaluate synthetic SDR datasets generated in MATLAB.

<https://loch.io>

SmartNet Communications Tucson, AZ
Freelance Web Developer September 2024 - November 2024

- Designed and deployed a responsive single-page application for a client using Next.js, improving site load metrics by over 40% via static site generation (SSG).

<https://smartnetcommunication.com>

Research & Programs

University of Arizona & NSF WISPER Center December 2025 - January 2026

- Co-authored a technical poster "Weakly Supervised Machine Learning for Enhancing RFI Detection in Passive/Active Coexistence Scenarios" presented at the NSF WISPER Workshop (Jan 2026).
- Collaborated with PhD candidates to implement Semi-Supervised GANs (SGAN) and InfoGAN architectures to mitigate Radio Frequency Interference (RFI) in sub-THz astronomical bands.

<https://zaydkrunz.com/research>

NSF AI-EDGE Institute (Undergraduate Research) June 2025 - July 2025

- Evaluated performance trade-offs between Vision Transformer (ViT) and Convolutional Neural Network (CNN) models by benchmarking accuracy against training epochs and steps.
- Compiled and analyzed the nanoGPT codebase to deconstruct the foundational architecture of a transformer-based language model.

<https://aiedge.osu.edu>

Stanford Pre-Collegiate Studies July 2025

- Engineered a predictive maintenance model by evaluating 12 algorithms (Random Forest, XGBoost, etc.) to detect rare equipment failures.
- Deployed a voting classifier optimized for high recall to minimize costly downtime events.

<https://zaydkrunz.com/spcs>

Skills

Programming Languages
C++, Python, TypeScript, JavaScript, SQL, HTML/CSS, Lua, LaTeX

Frameworks & Libraries
PyTorch, scikit-learn, NumPy, Pandas, Next.js, React, Tailwind CSS, Prisma, Bun

Cloud & Tools
AWS, GCP, Docker, Linux/Bash, PostgreSQL, Cloudflare, Git

Languages

Trilingual (Native Proficiency in English, French, and Arabic)