

DANIEL MCGEE MARIN

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EDUCATION

UC Berkeley - Management, Entrepreneurship, & Technology Program **Expected Graduation: May 2028**

Dual Degree: B.S. Electrical Engineering & Computer Science | B.S. Business Administration

Relevant Courses: Designing Devices/Systems, Structure & Interp. of Comp Programs, Found. of Business, Managing Tech Inno

Northern Kentucky University (NKU) - Young Scholars Academy Dual Enrollment - Scott HS **Aug 2022 - May 2024**

Relevant Courses: Numerical Analysis, Vector Calculus, Object Oriented Programming, Physics *GPA: 4.88 – Ranked #1*

Stanford - Summer Residential Program **Summer 2023**

Relevant Courses: Ordinary Differential Equations, Intro to Formal Methods of Philosophy, Public Speaking *GPA: 4.0*

PROFESSIONAL EXPERIENCE

NKU (Undergraduate Research), Frontend Data Analyst *Summer 2024* | **Highland Heights, KY**

- Led frontend development for an air quality dashboard using R Shiny with leaflet for geomapping and ggplot for visualizations, increasing the number of sensors visualized by over 4x compared to current solutions
- Worked with a team to develop SQL data integration strategies for importing and storing data from various sources, enhancing backend data accuracy and efficiency by 70% and reducing storage requirements by 80%
- Collaborated with 3 major air quality advocacy groups, implementing over 20 feature requests to ensure the dashboard met their informational needs and supported their initiatives and communities
- Created heatmap algorithms using interpolation and regression techniques to provide advanced data visualization, aiding in effective environmental analysis and decision-making

NKU (Undergraduate Research), Audio Classification Analyst *Summer 2023* | **Highland Heights, KY**

- Led the training of a machine learning model to classify gunshots and sirens using Mel and Fourier Transform features, achieving over 97% accuracy to help the deaf avoid potential dangers through audio detection
- Collaborated with a team to develop a portable Arduino device that implemented the model, resulting in a wearable device with battery life exceeding 24 hours and reliable real-time audio classification
- Presented research outcomes at a department seminar and submitted the project to the VentureWell Debut Competition, highlighting its innovative application and ability to improve and save lives
- Refined the model's performance, increasing detection accuracy by 35% in challenging acoustic environments

PROJECTS

Self Hosted Ubuntu Home Server *Ubuntu, Docker, Nginx, Cloudflare, Firewall/Network Management*

- Hosted and secured home server on Ubuntu in order to deploy Docker containers like Nextcloud, and host a personal site
- Configured and secured web access via port management, tunneling, firewalls, and cloudflare for reliable operation

Saifu, Time Based OTP Authenticator *Hackathon, PythonQT, Android Development, Full Stack*

- Co-developed an open-source TOTP authenticator app and web extension for 1 click OTP, started as a hackathon project
- Built the frontend in PythonQT and server backend, deploying the app for seamless integration with the web extension

Open Source Ecosystem *Fedora, Linux Environments, Graphene OS, FOSS Platforms*

- Built an open-source ecosystem on linux, researching apps, workflows, and scripts for automation and seamless integration
- Tinkered with Android GrapheneOS, integrating proper security and privacy practices with my open-source environment

LEADERSHIP & COMMUNITY IMPACT

Northern Kentucky Tutoring, Math and Stats Tutor *March 2022 – May 2024* | **Highland Heights, KY**

- Tutored over 65 students from Algebra through Calculus III and Statistics in a walk-in lab, providing personalized support that helped them overcome challenges and successfully pass their math/stats courses

LULAC National Education Service Centers, Regional Representative and Tutor *January 2020 – Sep 2023* | **Washington D.C**

- Provided math tutoring summer camps for the Esperanza Latino Center, boosting academic skills and confidence in over 50 Hispanic youth in the community, and being selected as regional representative and scholarship recipient for LULAC
- Co-developed a strategy at the LNES national seminar to reduce income misrepresentation for Hispanic college applicants, and presented as a keynote speaker to Hispanic leaders at the LULAC Leadership Banquet

AWARDS & ACHIEVEMENTS

HITEC Scholarship (*July 2024*), SKECHERS Scholarship (*June 2024*), NKU Exceptional Partner in Student Success (*May 2023*)
Presentations: “Air Quality Dashboard Showcase” (*April 2024*), “Getting Critical Info to the Deaf in a War Zone” (*July 2024*)

SKILLS & INTERESTS

Skills: Advanced: **Python, C#** Intermediate: **R, MATLAB, Java**, Beginner: **C++**, Microcontrollers, ML, Spanish (Native)

Interests: Entrepreneurship, Investing, Open Source, Privacy & Security, Ubuntu Servers, Poker, Clarinet, 3D Printing, Beaches