

KEVIN SONG

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EDUCATION

VANDERBILT UNIVERSITY

Bachelor of Science, Major in Computer Science, Minor in Business

Nashville, TN

Aug 2023 – May 2027

- **Scholarship:** Full Tuition Merit-Based Ingram Scholarship (awarded to <1% of 1800 students)
- **GPA:** 3.70/4.00
- **Selected Coursework:** Principles of Software Engineering, Artificial Intelligence, Operating Systems, Intermediate Software Design, Program Design and Data Structures, Programming Languages, Computer Architecture, Discrete Structures

PROFESSIONAL EXPERIENCE & PERSONAL PROJECTS

SONGSEARCH (*Independent Project*)

Clarksburg, MD

Cloud-Native AI/ML Music Copyright Verification Platform

Dec 2025 - Present

- Built a fully automated, online ML-driven music analysis system that verifies song originality using information-theoretic metrics, lyrical identification, motif repetition detection, rhythmic predictability vs. surprise, and harmonic tension analysis
- Designed and deployed secure end-to-end audio extraction features and inference pipelines requiring no user input beyond uploading an audio file, enabling scalable evaluation of musical quality and marketability in less than 30 seconds
- Deployed with Firebase database, Google Cloud Run (ML inference), and React frontend with JavaScript & TypeScript (Bun)

SIGNLECT (*Independent Project*)

Clarksburg, MD

Sign Language Detection & Translation on Raspberry Pi

Jul 2025 - Present

- Developed Python-based computer vision product to detect American Sign Language and provide instantaneous translation on Raspberry Pi 5 with camera, designed for use in educational environments for students with hearing impairments
- Independently trained custom YOLO model using PyTorch and open-source datasets on Google Colab with cloud-based GPUs
- Optimized model deployment on resource-constrained hardware for use in accessibility tech, improving inference speed by 100%

HANDSHAKE

Remote

AI Model Validation (MOVE Program) Fellow

Jun 2025 – Present

- Annotated and curated 20+ high-quality datasets to support supervised learning and strengthen models across diverse domains
- Evaluated model outputs through iterative validation and testing, aligning with human intent and real-world usability
- Assessed 50+ websites for key features and elements, contributing to enhancement of OpenAI's quality assessment products

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

Gaithersburg, MD

Software Engineering Intern

Jun 2024 – Aug 2024

- Developed intuitive user interface and data analysis graphing tool for NIST's open-source project, utilizing NumPy, PySide6, and Matplotlib libraries to create interactive visualization dashboards and simulate environments for Industrial AI testing
- Maintained open-source repository through Git, improving version control workflows and enhancing repository structure
- Adopted as novel feature in NIST's SimPROCESD, leading to tenfold increase in data processing and calculation efficiency

AIHEALTH (*VandyHacks X Hackathon*)

Nashville, TN

Team Lead & L3 Harris Award Recipient

Oct 2023

- Led 4-member team to develop AIHealth, an interactive online platform constructed using React.js, JavaScript, HTML/CSS, to provide users with personalized fitness plans and nutritious meal recipes tailored to individual needs and health metrics
- Integrated virtual chatbot with OpenAI API through custom prompts, providing user-friendly interactions and informative output
- Recognized with L3 Harris Award for innovation and user-centric design among 50+ national teams

IVY JOURNEY LLC

New York City, NY

Technology Lead & Web Developer

Aug 2022 – Present

- Spearheaded development of company website and online services, resulting in 100+ daily views and +150% increase in clients
- Integrated analytics and SEO enhancements, leading to a 20% increase in online discoverability and customer conversion
- Implemented responsive design and optimization, improving website functionality and 90% reduction in loading time

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, JavaScript, C, C++, Assembly, Arduino, CSS, HTML
- **Frameworks and Libraries:** React.js, Node.js, Firebase, React Native, NumPy, SciPy, YOLO, Ultralytics, PySide 6
- **Software Tools/Operating Systems:** Git, GitHub, Visual Studio Code, PyCharm, CLion, Eclipse; Windows, Linux, Mac

ADDITIONAL INFORMATION

- **Languages:** English (Native), Mandarin Chinese (Fluent), Spanish (Conversational)
- **Interests:** Engineering & Robotics Competitions, Songwriting & Music Production (6 original singles, 25,000+ streams in total), Tennis (School Varsity Member, 5+ years singles player in Linx Intramural Tennis Club), Swimming (7+ years), Piano (7+ years)