Philip Pincencia

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Education

University of California San Diego **Sep. 2022 – June 2026**
Bachelor of Science in Computer Engineering, Minor in Mathematics *La Jolla, CA*

- 3.97/4.00 overall GPA, 3.95/4.00 major GPA, course list available here

Experience

Signal Processing Chair **June 2024 – Present**
IEEE@UCSD *La Jolla, CA*

- Responsible in forming a team for the Signal Processing Cup hosted by the IEEE SPS.

Research Intern **January 2024 – September 2024**
Jacobs School of Engineering *La Jolla, CA*

- Working on formulating a risk metric to harmonically analyze the complexity of a jazz solo.

ECE Tutor **April 2024 – June 2024**
Jacobs School of Engineering *La Jolla, CA*

- Tutored undergraduate students in a signals & systems class and facilitated learning by proctoring quizzes and final exam, conducting weekly office hours, answering 200+ questions on the online class forum with an average response time of 5 minutes.
- Lead Quiz Reviews to help prepare for the upcoming quiz by meticulously formatting the questions and drawing plots and circuits using LaTeX to resemble the true quiz style.

Supplemental Instruction Leader **June 2023 – December 2023**
Teaching and Learning Commons *La Jolla, CA*

- Supported MATH 20B (Calculus II) and PHYS 2B (Electricity & Magnetism) courses by leading in-person and remote sessions that utilize fun, creative methods to review important concepts covered in lectures.
- Supported students earned on average half to a full letter grade higher than the peers who do not, and feedback received indicated students have a more positive attitude towards the subject.

Projects

Frequency-Selective LightShow | *Arduino, MATLAB, LaTeX* **April 2024**

- Created a presentation on the theory on Sampling Theorem, Nyquist Rate, and FFT, along with working through an example.
- Implemented the FFT algorithm and applying the Hamming Window to retrieve frequencies from the audio input signal.

JazzMIDIJam | *HTML/CSS, JavaScript, Bootstrap, Tone.JS* **January 2024 - Present**

- Created a website and uses WebMIDI API to interface with the MIDI instruments.
- Using WebAudio API to add sounds while playing the MIDI instruments.
- Utilized Web Design Principles to create a UI for the website in order to allow user to select and record their preferred jazz standard easily.

Technical Skills

Languages: MATLAB, Python, Java, C/C++, HTML/CSS, JavaScript, ARM Assembly, SystemVerilog
Tools/Libraries: VSCode, AutoCAD, Altium, LTSpice, Blender, Raspberry Pi
Languages: Indonesian (Native), English (Fluent)

Achievement

Web Design (Picasso): CodeHS (Online Certificate: https://codehs.com/certificate/rm2Kw8)
UCSD SUMS Integration Bee: Top 8 overall