

Sachita Jnanesh Rayapati

Recent Computer Science and Engineering graduate with hands-on experience in embedded systems, front-end development, and workflow automation. Proven ability to build real-time applications and improve user engagement with data-informed design.

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EDUCATION

University of California, Irvine

Sep 2021 - Mar 2025

- **B.S., Computer Science and Engineering** | GPA 3.25
- **Achievements:** Deans Honor List: Winter 2025, Deans Honor List: Spring 2024, Deans Honor List: Fall 2023
- **Coursework:** Compilers and Interpreters, Computer Networks, Cryptography, Data Structure Implementation and Analysis, Data Structures, Electronic Devices and Circuits, Intermediate Programming, Network Analysis, Organization of Digital Computers

SKILLS AND CERTIFICATIONS

- **Programming Languages:** Bash, C, C++, CSS, HTML, Java, JavaScript, Python, VHDL
- **Tools and Frameworks:** Agile, APIs, Flutter, Git, Jira, JUnit + Mockito, Mailchimp, ReactJS, TensorFlow Lite
- **Embedded Systems & Hardware Design:** ATmega32, AVR Microcontrollers, Digital Circuit Design, Raspberry Pi
- **Web Development and UI/UX:** API Integration, DOM Manipulation, UI/UX Design
- **Networking and Embedded Systems Protocols:** TCP/IP, DHCP, IPv4, IPv6, I2C, SPI, UART, GPIO
- **Other Skills & Certifications:** Technical Writing, Mastering Microcontroller: STM32-LTDC, LCD-TFT, LVGL (MCU3) - Fastbit Embedded Brain Academy

WORK EXPERIENCE

UCI Student Housing

2023 - 2025

Student Coordinator (Automation & Digital Ops)

Arroyo Vista

- Automated student selection using Python & SQLite3, reducing manual processing time by 50%.
- Boosted newsletter click-through rate by 25% via WCAG-compliant design and A/B-tested content improvements.

Tara Ayog – Ketto

2020 - 2021

Website Manager (Tech & Analytics) 'Web Developer & Data Analyst

Vidyashilp Academy

- Optimized crowdfunding platform engagement through A/B testing, web optimization, and content strategies
- Increased post engagement by 30% by analyzing metrics and optimizing campaign timing for COVID-19 relief.

TedxYouth@VSA

2020 - 2021

Marketing Crew (UX/UI & Front-End Dev)

Vidyashilp Academy

- Created a user-friendly website interface by aligning stakeholder goals, resulting in a 20% boost in user engagement.
- Designed an interface that improved user retention by 20%, leveraging user surveys, color psychology, Nielsen's usability heuristics.

PROJECTS

Sleep Quality Monitoring System

2024 - 2025

- Developing a real-time sleep monitoring system to analyze snoring, sleep apnea, and environmental disturbances.
- Implementing decibel-based sound analysis and integrating microphones, respiratory sensors to provide sleep insights

Smart Mirror | Capstone Senior Design Project

Sep 2024 - Mar 2025

- Built a voice-controlled smart mirror using Raspberry Pi and Amazon Alexa, enabling hands-free interaction with 5+ APIs.
- Developed a responsive UI that reduced latency by 40% compared to initial design iterations

Flutter AI Integration Project

Jul 2024

- Integrated TensorFlow Lite into a Flutter app, achieving 92% model accuracy in real-time image classification.
- Focused on efficient on-device model inference while optimizing UI/UX for cross-platform performance.

Embedded Systems Audio Media Player

Mar 2024

- Built a keypad-controlled music player on ATmega32; supported playback of 10 audio tracks via C-based logic.
- Reduced playback delay to under 100ms by optimizing firmware control flow and interrupts.

Pipelined Accelerated Object Locator

Nov 2022

- Designed a multi-stage pipelined datapath using VHDL, improving object detection and synchronization.
- Verified system through comprehensive testbenches with <2% error across simulation cycles.

Greedy Ants Hackathon Project | Front End (Website creator and manager)

Feb 2022

- Built a recipe search engine that pulled real-time results from multiple APIs with response time <1s.
- Increased user engagement by 40% during demo through intuitive UI and search filters.

LEADERSHIP AND COMMUNITY SERVICE

People Tree Foundation | STEM Education Mentor

2019 - 2020

- Tutored 10th and 11th-grade students in Algebra, Pre-Calculus, Python, and Java, helping underprivileged students continue their education during COVID-19.

ASHA Foundation | Logistics and Outreach Coordinator

2018 - 2019

- Tracked logistical data for campaign stays, ensuring efficient resource allocation. Assisted in designing awareness campaigns to promote education, child welfare, and healthcare accessibility.