Sachita Jnanesh Rayapati

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EDUCATION

University of California, Irvine | B.S. in Computer Science and Engineering   GPA 3.3 | March 2025

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

Languages: Bash, C, C++, CSS, HTML, Java, JavaScript, Python, VHDL

Tools and Frameworks: Flutter, Git, JUnit + Mockito, Mailchimp, ReactJS, TensorFlow Lite

Embedded Systems & Hardware Design: ATmega32, AVR Microcontrollers, Digital Circuit Design, Raspberry Pi

Web Development: API Integration, DOM Manipulation, UI/UX Design

Platforms: Adobe Acrobat, Canva, Microsoft Excel, Microsoft Word

WORK EXPERIENCE

Student Coordinator | *Arroyo Vista, UCI Student Housing, Irvine, CA*   2023-24
  Automation: Developed Python and SQLite3 scripts for random selection processes and data management.
  Email Marketing: Designed WCAG-compliant newsletters using Canva and Mailchimp for accessibility and engagement.
  A/B Testing: Optimized UCI Housing website content by analyzing call-to-action effectiveness.

Website Manager Marketing Crew | *TedxYouth@VSA*   2020-21
  Web Development: Designed and built a JavaScript, HTML, and CSS-based website aligned with brand identity.
  Event Management: Developed a ticketing platform for seamless event registration.

PROJECTS

Sleep Quality Monitoring System (Ongoing) | *Leveraging sound analysis and sensor data to monitor and improve sleep patterns.*
  Sound Analysis: Detecting snoring, sleep apnea, and disturbances via decibel monitoring.
  Sensor Integration: Utilizing microphones, respiratory, and heart rate sensors.
  Data Analytics: Implementing sound analysis software for sleep insights and environment optimization.

Smart Mirror- Senior Design Project   September 2024- March 25
  UI Design: Creating a responsive interface for a two-way mirror or transparent display panel.
  Embedded Systems: Integrating a Raspberry Pi for full system control.
  Voice Control: Implementing Amazon Alexa for hands-free functionality.
  API Integration: Connecting real-time data sources like Spotify and WeatherApp.

Flutter AI Integration Project   July 2024
  Machine Learning: Integrated TensorFlow Lite for real-time image classification.
  UI/UX Design: Leveraged Flutter's widget library for seamless cross-platform performance.

Embedded Systems Music Player   March 2024
  AVR Programming: Developed a music player in C with keypad-based song selection.
  Microcontroller Debugging: Validated real-time response on an ATmega32.

Pipelined Accelerated Object Locator   November 2022
  VHDL Development: Designed a multi-stage pipelined datapath with optimized control logic.
  Testing & Verification: Created VHDL testbenches for synchronization and clock cycle management.

Greedy Ants Hackathon Project | Front End (Website creator and manager) Developer | Irvine, CA   February 2022
  Web Development: Built a recipe search engine using Python, JavaScript, and HTML.
  API Integration: Enabled dynamic recipe generation from minimal ingredient sets.
  UI/UX Design: Enhanced user engagement with an intuitive, responsive interface.

LEADERSHIP AND COMMUNITY SERVICE

Tara Ayog | Website Management: Developed and maintained a crowdfunding platform.   2020-21

Fuel-A-Dream | Assisted in fundraising campaigns and outreach.   2019-20

ASHA Foundation | Tracked logistical data for campaign stays and designed awareness campaigns.   2018-19

People Tree Foundation | Taught Mathematics and Programming to underprivileged students during Covid.   2019-20