

# Dhruv Jain

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Senior from UCLA actively seeking full-time opportunities in hardware design, embedded systems, and related fields.

## Education

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### University of California, Los Angeles

BS IN COMPUTER ENGINEERING (GPA: 3.76/4.0)

Los Angeles, CA

Expected Jun 2024

## Experience

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### ENGR 96I - Internet of Things

UNDERGRADUATE GROUP TUTOR

Los Angeles, CA

Jul 2023 – Present

- Collaborated with Dr. William Kaiser to enhance course content for 70 EE undergrads
- Used an STMicronics educational platform to rigorously test and improve course material, ensuring its relevance
- Proactively assisted in lab sections, providing personalized guidance for improved academic performance
- Streamlined learning with 8 informative LaTeX tutorial PDFs, improving comprehension and academic progress

### Veridic Solutions

PYTHON DEVELOPMENT INTERN

Los Angeles, CA

Jun 2023 – Sep 2023

- Integrated comprehensive logging mechanisms into diverse data scraper frameworks, saving 2+ hours a day
- Configured automated data retrieval scripts using AWS, ensuring up-to-date datasets for critical operations
- Designed an intuitive visual dashboard with Python and Loggly, enabling comparison of key metrics across scrapers, enhancing data-driven strategies

### Tavant

MACHINE LEARNING INTERN

Noida, India

Jul 2023 – Aug 2022

- Implemented data preprocessing, addressing missing values and outliers for large 400,000+ row datasets
- Researched NBA workflows in the SaaS industry, analyzing methodologies and best practices
- Developed NBA algorithms using Deep Learning and Reinforcement Learning techniques
- Created a presentation on NBA workflows for future company use in training new hires

### Library Assistant Supervisor

UCLA LIBRARY

Los Angeles, CA

Apr 2022 – Present

- Engaged with patrons, addressing diverse queries and enhancing satisfaction, averaging 50+ interactions daily
- Organized a 300,000+ item collection using Library of Congress classification, improving search capabilities
- Developed a standardized book processing workflow, increasing efficiency and reducing delays
- Improved office productivity by maintaining accurate records and managing a student team

## Projects

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### Mouse Mover

COMPUTER INTERFACE PROTOTYPE

Demo

[youtu.be/OnOPmhkEuQk](https://youtu.be/OnOPmhkEuQk)

- Developed a gesture-controlled mouse with machine learning for enhanced accessibility
- Implemented algorithms enabling seamless navigation for users with limited mobility, showcasing proficiency in HCI and inclusive design

### MixBot

AUTOMATED BARTENDER

- Developed and implemented a web-controlled automated bartender system, utilizing precision dispensing mechanisms and IoT technology for customized drink orders
- Demonstrated proficiency in networked solutions, and embedded systems and integration

### FPGA Drummer

PROGRAMMABLE DRUM MACHINE

- Programmed a 4-track drum machine on a Digilent FPGA using Verilog for low-latency, real-time music production
- Demonstrated proficiency in hardware design, FPGA programming, and audio signal processing

## Skills

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**Languages:** Python, C, C++, Verilog, React, Bash, SQL, Matlab

**Technologies:** Git, LaTeX, logic and digital design, computer architecture