

# SHIVANSH PRATAP SINGH

## Software Engineer

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## EXPERIENCE

### Software Engineering Intern

#### Cadence Design Systems

Feb 2024 – Ongoing

Noida

- Debugging and writing code for Allegro and OrCAD X software primarily using C++ and Qt framework.
- Implementing and designing REST APIs to facilitate proper data handling for library management and authoring features.
- Collaborated on architectural decisions, including data flow from the client-side and server communication.
- Utilized Linux to design and implement unit tests for existing and new features using Tcl scripting language.
- Contributed to a streamlined CI/CD development process.

### Intern

#### Datacouch.io

Nov 2022 – March 2023

Noida

- Completed individual AI-ML project on Face mask/glasses detection in Python.
- Implemented Zoom attendance automation using Webhooks and Zapier APIs.
- Created consulting presentations for various cloud storage solutions (AWS, S3, Azure, Snowflake, GCP).
- Prepared a blog on Apache Airflow.
- Designed a tutorial for various visualizations using Power BI with real customer data.

## KEY ACHIEVEMENTS

### Allegro DEHDL-Flow Feature Development

- Developed new features for the DEHDL-flow in Allegro, focusing on symbol editing, which will go live in the 24.1 release.
- Took ownership of a feature-set complete with all their functions and APIs closely working with other teams to fix new bugs as development went on.

## EDUCATION

### B.Tech (Hons.) in Computer Science

#### UPES Dehradun

August 2019 – July 2023

### Class XII

#### Delhi Public School, Greater Noida

April 2016 – June 2017

## PROJECTS

### Disease Detection in Plants using Deep Learning

01/2023 - 6/2023

- Determined and classified images of plant leaves according to their diseases and stage.
- Using Tensorflow and Keras libraries in Python to create, optimize and tune a CNN model.
- Achieved high accuracy in classifying both the plant diseases and their stages.

### Spam Email Detection using Machine Learning

06/2022 - 12/2022

- Used Python to develop a Logistic regression model for determining whether an email is spam or not.
- Created and fitted the model to a sample database, achieving measurable accuracy.

### IoT based medicine reminder and email alert system

01/2022 - 06/2022

- Utilized an ESP32 board with physical sensors programmed through Arudion IDE to create a medicine reminder system.
- Implemented an alarm using NTP Server, an email alert system triggered by an ultrasonic sensor.

## TRAINING & COURSES

- **C++ For C Programmers, Part A + B**  
- University of California, Santa Cruz  
[Coursera, 2024]
- **Data Structures**  
- University of California San Diego  
[Coursera, 2024]
- **Digital Systems: From Logic Gates to processors** - Universitat Autònoma de Barcelona  
[Coursera, 2024]
- **VLSI CAD Part I: Logic**  
- University of Illinois Urbana-Champaign  
[Coursera, 2024]

## SKILLS

C++

Python

Qt

Perforce

Tcl

Linux

VLSI

CI/CD