

Pranav Taysheti

ASSOCIATE SOFTWARE DEVELOPER

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Skills

Backend

Go, NodeJS

AI / ML

Python, Pandas, PyTorch, Scikit-Learn, SciPy, NumPy

Frontend

Preact, React, Preact Signals, Redux, Astro

Programming

JavaScript, TypeScript, Python, Go, C, Nim

Microsoft PowerBI

PowerBI, DAX

Database

SQL, PostgreSQL

CAD

SolidWorks, FreeCAD, AutoCAD

Languages

English, Hindi, Marathi, Kannada, German (A2)

Summary

Software Engineer with penchant to detail and solving difficult problems. Diverse software engineering experience ranging from developing frontend using React and working with Machine Learning in PyTorch to developing programs for microcontrollers in C and solving through increasingly difficult 50 problems of Advent of Code.

Prefers a command line interface as a big fan of NeoVim and Linux. Loves customizing environment for maximum productivity and automation. Interested in solving the problem in most optimal way, and developing right and fast algorithms for doing so.

Education

Manipal Institute of Technology

B. TECH IN MECHANICAL ENGINEERING

Manipal, Karnataka, India

Aug. 2018 - Aug. 2022

Work Experience

Veerasha Castings Pvt. Ltd.

CAD DESIGN INTERN

Sangli, Maharashtra, India

Aug. 2022 - Jul. 2024

- Developed CAD models for automobile parts using SolidWorks in production in 2 formats - post machining and pre machining.
- Gained exposure to manufacturing process, defects formed in foundry and how some of them can be corrected in machining phase.
- Developed models considering similarities of the same model family such that new models of same family can be made with minimal changes to features and sketches.

AllSkiers

FINANCE MEMBER

Manipal, Karnataka, India

Aug. 2021 - Dec. 2021

- Analyzed the viability of the in development product in the market against the market trends, competition, consumer taste, etc and made report on the same

Projects

Advent of Code

GITHUB.COM/PRANAVTAYSHETI/ADVENT-OF-CODE

Dec. 2024, 2025

- Completed all 50 challenges of Advent of Code without external aid or AI, demonstrating strong problem solving ability and self directed learning.
- Applied deep knowledge of data Structures and algorithms to develop solutions in Go and Python.
- Strengthened coding skills in Go and Python through solving increasingly complex computational problems.

Self Balancing Robot

GITHUB.COM/PRANAVTAYSHETI/SELF-BALANCING-ROBOT

Mar. 2026

- Built firmware for self balancing robot for Raspberry Pi Pico on Arduino Framework.
- Implementing real-time sensor fusion with a Kalman filter for orientation estimation and Implemented a deterministic control loop (500 Hz) with execution time constrained below 1 ms to meet real-time stability requirements
- Built a Python-based calibration tool to automate 6-axis IMU calibration, improving sensor accuracy and reducing manual effort

ForkGlowy

GITHUB.COM/PRANAVTAYSHETI/FORKGLOWY

Jul. 2023 - Aug. 2023

<https://forkglowy.web.app>

- Built a full-stack task management app to learn modern web development, integrating Firebase Realtime Database and Authentication for secure, per-user data sync.
- Implemented optimistic UI updates with Redux Toolkit async thunks, so task changes reflect instantly before the Firebase write completes.
- Integrated Firebase Authentication with Redux state and client-side route guards, automatically redirecting unauthenticated users to the login page.

Extracurricular Activity

MotoManipal

Manipal, Karnataka, India

FINANCE LEAD

Aug. 2019 - Aug. 2021

- Built and maintained a system for recording all internal and external transactions of the organization using microsoft excel. and tracked expenses throughout the period
- Onboarded several companies as sponsors for the organization.
- smoothly cleared pending and new PRs throughout the period and trained new recruits for the same.

Publication

Aqua-Vision (An underwater panoramic camera with computer vision and analytics)

Manipal, India

JOURNAL OF PHYSICS: CONFERENCE SERIES, VOLUME 2161

Oct. 2021