# Satish Upadhyaya

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#### **EXPERIENCE**

#### CU Boulder Sustainable Buildings Lab, Research Assistant

November 2018 - PRESENT

Developed a scalable software system on CU's supercomputer cluster for running large scale energy simulations.

#### Microsoft Azure Networking, Software Engineer Intern

May 2020 - August 2020

Designed and developed a distributed software system for the Physical Networking team with authentication, server-client architecture, and Azure storage services. Constructed critical infrastructure that had not existed for our product.

#### Udana Systems, Co-Founder and Chief Engineering Officer

February 2018 - June 2020

Co-founded an autonomous drone delivery start-up using cutting edge technologies. Developed a Minimum Viable Product using ROS, PyTorch, and other technologies.

#### Workday, Software Engineer Intern

May 2019 - November 2019

End-to-end web application development for the new multi-level sort feature within Workday Worksheets.

#### **PUBLICATION**

#### Development of New Baseline Models for U.S. Medium Office Buildings on Commercial Buildings Energy Consumption Survey Data — Journal: Taylor & Francis Online, 2020

This research was supported by the National Science Foundation under Awards No. IIS-1802017.

#### **SKILLS**

#### Languages, Frameworks, and Technologies

Python, C, C++, C#, Java, Scala, JavaScript, TypeScript, HTML, CSS, Vue.js, React, Flutter, Django, Git, Pandas, Numpy, Scikit-learn, SVM

#### Other skills

Data Structures, Arduino, Linux, Data Science, Embedded Systems, Mobile Development

#### **EDUCATION**

#### University of Colorado Boulder, Computer Science BS

2017 - 2021

Relevant Courses: Programming
Languages, Robotics, Algorithms, Data
Science, Digital Logic, Operating Systems,
Cybersecurity, Software Development,
Discrete Structures, Computer Systems,
Data Structures

#### **PROJECTS**

### OpenPose Drone Control Via Body Movement— ROS

Simulation

An application developed using MAVROS to control a drone through real-time user input via keyboard controls, ArUco tracking, and OpenPose.

#### **NFL Home-Field Predictor**

#### Support Vector Machine

A Python application developed to predict if the game was played in the home field or away based on the QB rating and total points scored.

## **Bike Buddy** — Bicycle Security System

A cross-platform application and embedded systems project that allows bike users to virtually 'lock' their bike. My work focused on developing part of the mobile application (Flutter), programming a Raspberry Pi to perform HTTP requests to our API, and interfacing sensors such as an accelerometer and a buzzer.