Aditya Kunte

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EDUCATION

University of Illinois at Urbana-Champaign **Fall 2021 - Spring 2025**
Bachelor in Science (Computer Science) with a Statistics minor - ***3.86 GPA*** *Urbana, United States*

COURSEWORK

- Machine Learning
- Database Systems
- Networks
- Blockchain
- Full Stack
- System Programming
- Computer Architecture

TECHNICAL SKILLS

Languages: Python, Java, C++, Haskell, SQL, HTML5/CSS3, Verilog, MIPS Assembly, Bash

Technologies/Frameworks: Linux, Git, React, AWS/GCP, Android Studio

WORK EXPERIENCE

***CreateLab*, Duration: May-Present** **2024**
Researcher, Software Engineer *Champaign, Illinois*

- Implemented a **Causal Forest** with comparable accuracy to model implementations like EconML.
- Investigated **parallelism** in **sklearn's Random Forest** by modifying source code and comparing **threaded** versus **multi-processing** implementation using **Joblib.**
- Profiled **Cython** code to understand memory and CPU usage of sklearn's Random Forest on a multicore system.

Applied Research Institute, Duration: May-Present **2024**
Software Engineer *Champaign, Illinois*

- Building mealplot.com, a weight-tracking and nutrition information tool, using **React**
- Built a **Flask API-endpoint** to serve user data to the React webpage

Sellou, Duration: 3 months **2023**
Intern, Software Engineer *Tokyo, Japan*

- **Full-stack development** of a social-media **android app**.
- Utilized **Firebase** for back-end development and **React-Native** for front-end development.
- Implemented liking, commenting, and posting abilities for each user.

Centelon IT Solutions, Duration: 3 months **2022**
Intern, Software Engineer *Mumbai, India*

- Created an image **web-scraper** to collect images of credit cards using Python's **Selenium** Library.
- Researched on developing a **Generative Adversarial Network** (GAN) to generate Credit Card images using **machine learning.**

PROJECTS

Mood Music AI

- Utilized the **Wav2Vec2** model to create a web-app for users that want to listen to 'mood' based music.
- Users could upload an audio file or record their voice, and the model would determine the user's emotion.
- Based on this mood, a playlist was made using the **Spotify API**.
- Also wrote middle-ware to manage the processing of audio files through **Flask**

Ascent Rock Climbing Tool

- Designed a rock-climbing tool that measured grip strength and other metrics for a rock-climber.
- Ran a **server** on an Arduino D1 mini **microcontroller** which received data from a muscle sensor.
- Designed the webpage that received and displayed the processed data for the user.

Community Detection

- Parsed a Stanford dataset of Github users (nodes) and who they followed (edges) to create a **graph** in C++.
- Used the **Girvan-Newman algorithm** to create **communities** of users, based on mutual followers.
- Used **Dijsktra's algorithm** to find relationships between any two users that have a mutual follower.

Course Recommendation

- Created and designed a course recommendation website in **Flask**.
- Rated a student's selected courses based on the professor, total credit hours, and the student's schedule.
- Wrote functions to fetch data from the professor's RateMyProf webpage using **beautifulSoup**.