

# Charitarth Chugh

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## EDUCATION

### UCONN COMPUTER SCIENCE & MATHEMATICS-STATISTICS

Expected Graduation: May 2025

### RELEVANT COURSEWORK

Data Structures & Algorithms • Systems Programming • Cybersecurity • Data Manipulation • Computer Architecture • Applied Linear Regression

### TEACHING

CSE 5097: Introduction to Transformers Architecture

## ACTIVITIES

### UCONN AI CLUB

PRESIDENT: 2023-2025

- AI Club does workshops, showcases, and projects around transformers and deep learning.
- Co-ordinated and lead weekly meetings
- Spearheaded the Special Projects Group to do open-source contributions to LiquidPrep, an organization helping farmers

## SKILLS

### PROGRAMMING

Python:

PyTorch • Transformers • Plotly • Matplotlib • Pandas • NumPy • FastAPI • SQLAlchemy

Other:

Flutter • Git • GitHub • SQLite • Linux • Docker • Podman • CI/CD • JavaScript • NodeJS • React • GCP

Familiar:

R • Java • Kotlin • Bash • Fish • HTML • CSS • LaTeX • OpenAPI • AWS

### LANGUAGES

English • Hindi (Speaker)  
Spanish (Basic)

## LINKS

GitHub:// [charitarthchugh](#)  
LinkedIn:// [charitarth](#)  
Twitter:// [@charitarthchugh](#)  
Kaggle:// [charitarth](#)  
Medium:// [@charitarth.chugh](#)

## PROJECTS

### BOOKIE | FULL STACK

May 2022-Current

- Created a cross-platform bookmark manager using FastAPI, SQLite & Flutter
- Managed a 5-person cross-functional team (frontend, backend, database)
- Developed CLI interface, API, daemon and facilitated Python packaging
- Rewrote database for faster writes and updates, using recursive SQL database structure.

### EXO-EDA | DATA ANALYSIS

July - August 2021

- In-depth analysis of exoplanet data from the NASA Exoplanet Archive, using Pandas, NumPy, Seaborn, and Matplotlib
- Cleaned and looked for relative anomalies in the data, such as planets orbiting multiple stars
- Found at 178 planets with a chance of habitability by looking at the luminosity and distance the planet was away from the star

### NEATBOT | MLOPs

June 2022

- Created a Discord Bot that detects code languages in a code block and replies with the correct syntax highlighting
- Deployed to Google Cloud Platform using Docker
- Achieved a less than 10 second end to end response time

## RESEARCH

### CTI | UNDERGRADUATE RESEARCHER

November 2022 - Present | Storrs, CT

- Developed and optimized machine learning models for embedded devices for object detection tasks under the guidance of **Dr. Caiwen Ding**
- Collected high fidelity LiDAR data for Autonomous vehicles
- Working to run reinforcement learning models on model autonomous driving vehicles.
- Upcoming: Will be working on developing deep learning algorithms for cybersecurity applications

## CERTIFICATIONS AND AWARDS

### BEST USE OF TWILIO | HACKUMASS 10

November 2022

- Built Who's There, a smart lock that uses a state-of-the-art transformers image captioning model to tell someone what is happening outside of their door

### COINDESK X TRADEBLOCK CRYPTO HACKATHON | 1ST PLACE

February 2022

- With a 5-person team developed a custom momentum based algorithm that detected rises and falls within Bitcoin and Ethereum prices with a custom load factor to detect volumes of trades

