

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 • Analysis of Experiments

TEACHING

CSE 4095: Introduction to Transformers Architecture

ACTIVITIES

UCONN AI CLUB

SECRETARY: 2021 - 2023

- AI Club does workshops, showcases, and projects around transformers and deep learning.
- Co-ordinated and lead weekly meetings
- Lead 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

Familiar:

Java • Kotlin • Bash • Fish • HTML • CSS • \LaTeX • OpenAPI • AWS • GCP

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

- Developed a cross-platform bookmark manager using FastAPI, SQLite & Flutter
- Managed a 5-person cross-functional team frontend, backend
- Developed CLI interface, API, daemon and facilitated Python packaging

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 of the star and the 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

CAPLAB | UNDERGRADUATE RESEARCHER

November 2022 - Present | Storrs, CT

- Developed and optimized machine learning models for embedded devices for object detection tasks using sparsity and quantization techniques under the guidance of **Prof Caiwen Ding**; achieved 50mAP for object detection task
- Implementing autonomous vehicle systems involving LiDAR and point cloud deep learning models

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 you what is happening outside of someone's 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

ZERO TO GANS | CERTIFICATION, JULY 2020

ZERO TO PANDAS | CERTIFICATION, AUGUST 2021

