

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 deep learning.
- Responsible for planning and leading 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

- Creating a cross-platform bookmark manager using Fast API, SQLite & Flutter.
- Served as the Lead Developer and Project Manager in a small team
- Created CLI interface, API, daemon and was responsible for Python packaging.
- Supervised the creation of new features and encouraged standards that promote future maintainability

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 the data and identified potential planets that reside in the habitable zone of their host star
- Looked for relative anomalies in the data, such as planets orbiting multiple stars
- Found 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 being used in a code block and replies with the correct syntax highlighting
- Deployed to Google Cloud Platform using Docker

RESEARCH

LABORATORY OF INTELLIGENT AND EFFICIENT SYSTEMS |

UNDERGRADUATE RESEARCHER

November 2022 - Present | St

Working under Prof Caiwen Ding to develop optimized machine learning models for object detection tasks on embedded devices, using techniques such as sparsity and quantization. Additionally working with 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 your 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