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
• 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
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
- 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

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 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