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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-Present

- 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 vehicles.
• Upcoming: Will be working on developing deep learning algorithms for cybersecurity applications

CERTIFICATIONS AND AWARDS

HACKHARVARD 2023 | Efficiency Boosters Prize
October 2023

- Created SnipStudy, a product that helps students extract information from long form video content, such as video lectures, more efficiently.

HACKUMASS X | Best Use of Twilio
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