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
Upcoming (Spring 2023):
Computer Architecture • Algorithms • Analysis of Experiments

TEACHING
Upcoming (Spring 2023):
Deep Dive into Transformers

ACTIVITIES

UCONN AI CLUB
Secretary: 2021 - 2023
- AI Club does workshops, showcases, and projects around deep learning.
- Responsible for planning and leading weekly meetings

SKILLS

PROGRAMMING
Python:
PyTorch • Transformers • Plotly • Matplotlib • Pandas • NumPy • FastAPI • SQLAlchemy • Flask
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 thie 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