Charitarth Chugh

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EDUCATION

UCONN
COMPUTER SCIENCE &
MATHEMATICS-STATISTICS
Expected Graduation: May 2025

Relevant Coursework
Machine Learning • Data Science
Data Structures & Algorithms
Probability • Systems Programming
Applied Linear Regression

SKILLS

PROGRAMMING
Python:
NumPy• Pandas• Polars• Matplotlib
FastAPI • SQLAlchemy • Flask
Frontend:
Flutter • React • HTML/CSS •
MACHINE LEARNING
Tools:
PyTorch • Transformers • scikit-learn
XGBoost • Albumentations
DEVELOPMENT
Git & GitHub • Linux • Bash • Containers
(Docker, Podman) • CI/CD •

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

LINKS

GitHub:// **charitarthchugh**
LinkedIn:// **charitarth**
Twitter:// **@charitarthchugh**
Kaggle:// **charitarth**
Medium:// **@charitarth.chugh**

WORK EXPERIENCE

PROTECTION SHIELD | MLE, Freelance
September 2023 - Current
- Protection Shield is a startup working on intelligent network firewall systems
- Working on their AI team to build federated learning models to detect network attacks.

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 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.

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

COINDESK X TRADEBLOCK CRYPTO HACKATHON | 1st Place