Charitarth Chugh

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EDUCATION

UCONN
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.

ENERGY JUSTICE MAPPING TOOL | DATA SCIENCE
July - August 2021
- Building an interactive web dashboard to empower communities and stakeholders to address energy distribution inequities across Connecticut
- Working in a multidisciplinary team, combining expertise in civil engineering, environmental engineering, and data science
- Successfully utilized a suite of over five data APIs to facilitate real-time data access and enhance analytical capabilities.
- Leading
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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