Mudit Chaudhary

Graduate Student looking for Summer 2022 Internship

mchaudhary@umass.edu; (617) 504-2142
Website: muditchaudhary.github.io
LinkedIn: /in/muditchaudhary
Github: muditchaudhary

Education

University of Massachusetts Amherst

M.S. in Computer Science | Concentration: Data Science | CGPA: 4.00/4.00

Amherst, MA
Sep 2021 - May 2023

Relevant Courses: Systems for Data Science, Neural Networks, Independent Study on Information Retrieval Systems

The Chinese University of Hong Kong

B.Sc. in Computer Science | Concentration: Intelligent Science

Hong Kong
Sep 2016 - May 2020

Minor: Data Analytics and Informatics

Relevant Courses: Algorithms, Database Systems, Operating Systems, Software Engineering, Data Science, Mobile App Development, Machine Learning, Artificial Intelligence, Linear Algebra and Vector Calculus

Scholarships and Awards: Dean's List, College Head's List, College Academic Prizes, Honors at Entrance, Full-tuition Scholarship

Work and Research Experience

Full-time Research Assistant

The Chinese University of Hong Kong (Supervisor: Prof. Helen Meng)

Hong Kong
Aug 2020 - Aug 2021

- Researched on Dialog Systems and Cross-lingual Hyperbolic Word Embedding and submitted papers to major conferences
- Participated in the 9th Dialog System Technology Challenge (DSTC9) and qualified as top finalists with a workshop paper accepted at DSTC9 workshop at AAAI-2021
- Assisted in the development and deployment of a knowledge-grounded dialog system that extracts information from unstructured knowledge for queries outside the structured database
- Developed and deployed Aspect-Based Sentiment Analysis and Voice Conversion deep learning models to production as Web APIs and scaled to production using Docker and Gunicorn
- Performed API load testing using Apache JMeter
- Improved API throughput by implementing asynchronous queue workers using Celery and Redis
- Maintained and configured GPU servers for model development, training, and deployment

Deep Learning Summer Intern

Logistics and Supply Chain MultiTech (LSCM) R&D Centre (Supervisor: Dr. Dorbin Ng)

Hong Kong
Jun 2019 - Aug 2019

- Researched, developed, and trained Transformer based neural machine translation model and deep learning sequence models for business arbitration domain
- Generated computational resource estimations for the models and performed feasibility analysis
- Designed and developed a deep learning model system to learn non-verbal features in conversational setting from audio and video media for chatbot augmentation

Major Projects and Publications

- **Unstructured Knowledge Access in Task-oriented Dialog Modeling using Language Inference, Knowledge Retrieval and Knowledge-Integrative Response Generation:** Workshop paper accepted for AAAI-21 Conference's Dialog Systems Technology Challenge 9 (DSTC9) Workshop [arXiv:2101.06066] [Github]

- **Improved RepPoints Object Detection Model with Attention:** Used training balancing methodologies and developed a novel transformer-based attention mechanism for RepPoints [Github]

- **Small Sample Learning:** Food Classification from a small training sample. Project for Huawei AI Cloud Developer Challenge 2019 (Top 10 Finalists) [Github]

- **MapReduce:** A multi-process fault tolerant MapReduce library from scratch using Java

- **UTrack:** An Android app for tracking graduate school applications using Kotlin and Firebase [Github]

- **NoQueue:** A food ordering web application using Django with user management [Github]

- **Employee Hiring Portal:** An employee hiring portal for job applications using Java and SQL [Github]

- **Dialog Breakdown Detection:** An AI-based system to detect dialog breakdown in conversational systems and chatbots

Skills and Certifications

Programming Languages: Python, Java, Kotlin, Golang, C++, C,

Software Development and Misc.: Linux, Docker, Flask, Django, RESTful API, Android app development, Git, Apache JMeter, MongoDB, MySQL, SparkSQL, Celery, Redis, Gunicorn, PySpark, MapReduce

Machine Learning: PyTorch, Keras, Tensorflow, Gensim, Sci-kit Learn, Huggingface, SpaCy, Numpy

Certifications: Microsoft Azure AI Fundamentals AI-900 Credential ID: oQCV-uSoV