Mudit Chaudhary

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EDUCATION

University of Massachusetts, Amherst, MA, USA (Incoming) 2021 - 2023
Master of Science, Computer Science with concentration in Data Science

The Chinese University of Hong Kong, Hong Kong 2016 - 2020
Bachelor of Science, Computer Science with concentration in Intelligent Science
Minor: Data Analytics and Informatics

PROFESSIONAL AND RESEARCH EXPERIENCE

The Chinese University of Hong Kong, Hong Kong August 2020 – August 2021
Full-time Research Assistant (Supervisor: Professor Helen Meng)

- Researched on Dialog Systems, Cross-lingual Hyperbolic Word Embeddings, and NLP
- Submitted research papers to major conferences. 1 paper currently under review
- Assisted in the development and deployment of a knowledge-grounded dialog system
- Assisted in the development of AI teaching curriculum and tools for high school students as part of the 'CUHK-Jockey Club AI for the Future' project
- Communicated with different stakeholders to improve the AI teaching curriculum
- Developed, deployed, and scaled Aspect-Based Sentiment Analysis and Voice Conversion deep learning models to production
- Conducted API load testing using Apache JMeter
- Developed dashboard for monitoring and managing the deployed web-APIs
- Designed and conducted AI workshops for school teachers and students
- Maintained and configured GPU servers for model development, training, and deployment
- Setup knowledge collaboration and sharing platform for the project team
- Trained and assisted project interns

Logistics and Supply Chain MultiTech (LSCM) R&D Centre, Hong Kong June 2019 - August 2019
Summer Intern (Supervisor: Dr. Dorbin Ng)

- Performed research, developed and trained the Transformer NMT model and Deep Learning Sequence Models for domain-specific translation
- Performed feasibility analysis and generated computational resource estimations for the models
- Planned and developed Deep Learning Models to learn non-verbal features in conversational setting for chatbot augmentation

The Chinese University of Hong Kong, Hong Kong February 2019 - August 2019
Part-time Research Assistant (Supervisor: Professor Bei Yu)

- Assisted research on 'Faster Region-Based Hotspot Detection using Deep Learning'
- Learned about two-stage object detection models: Faster-RCNN
- Updated the codebase to support Python 3

First Code Academy, Hong Kong June 2018 - August 2018
Summer Intern

- Taught programming skills to students, including Python, HTML/CSS, microcontrollers, app development, and VR
- Responsible for course creation and periodically communicating students' performance with their parents
- Assisted in the creation & organization of Standard Onboarding Procedures

Centre for Global Health, The Chinese University of Hong Kong August 2017 - September 2017
Front-end web developer

- Comprehensively updated over 104 webpages, which included creating and remodeling the content as well as the design style enhancing the user experience significantly

PROJECTS

- **Final Year Research Project- Revisiting Object Detection Model**
  Worked under the supervision of Prof. Bei Yu to improve the performance of the RepPoints Object Detection Model. Focused on training balancing methodologies and developed a novel KQR Attention mechanism based on Transformer attention. Used PyTorch and mmdetection framework. Achieved final grade 'A.'
- **UTrack- University Application Tracker Android App**
  Developed an android app for for graduating students to track graduate school applications.
- **Skin Lesion Classification to detect Skin Cancer using Deep Neural Networks**
  Course research project under the supervision of Prof. K.S. Leung and Mr. FU Xinyu. Trained the ResNet model to detect and classify skin lesions. Achieved an accuracy of 78%.
- **Drug Molecular Toxicity Prediction using Deep Neural Networks**
  Deep learning model to predict the toxicity of a molecule based upon its structure. An application-based project as a part of the course – 'Fundamentals of Artificial Intelligence.'
- **Small Sample Learning**
  Deep Learning model to learn from small samples using Transfer Learning. Top 10 finalist for Huawei AI Cloud Developer Challenge.
- **NoQueue**
  A food ordering application based on the Django framework.
- **Employee Hiring Portal**
  Created an employee hiring portal using Java and SQL.
- **2048 Game with AI**
  Developed a 2048 Game with an AI player using C-Language.

PUBLICATIONS

- 'Unstructured Knowledge Access in Task-oriented Dialog Modeling using Language Inference, Knowledge Retrieval and Knowledge-Integrative Response Generation'- Workshop paper accepted for AAAI 2021 Conference's DSTC9 Workshop [arXiv:2101.06066]

CERTIFICATIONS

- 'Microsoft Azure AI Fundamentals AI-900'- Credential ID: oQCV-uSoV
- 'Neural Networks and Deep Learning' authorized by deeplearning.ai and offered by Coursera

TECHNICAL SKILLS

C, C++, Java, Python, Kotlin, COBOL, Pytorch, Keras, Tensorflow, Machine Learning, Linux, Django, Flask, Docker, mmdetection, RESTful API, Google Cloud Platform, Slurm, Android app development, HTML, CSS, MySQL

AWARDS AND SCHOLARSHIPS

- Selected for Faculty of Engineering Dean's List 2019-2020 for outstanding academic performance 2020
- Selected for United College Head's List 2019-2020 for outstanding academic performance 2020
- Received Yuen Bing Kwan Ming De Xin Alumni Prize for outstanding academic performance 2019
- Received 1976 Ming De Xin Min Alumni Academic Prize for outstanding academic performance 2018
- Received 'Honors at Entrance' for exceptional academic performance at admission 2017
- Awarded Faculty of Engineering Admission Scholarship worth ~USD 5900 2016
- Awarded full-tuition scholarship at The Chinese University of Hong Kong 2016 - 2020

EXTRACURRICULAR ACTIVITIES

- Participated in Huawei AI Cloud Developer Challenge 2019. Qualified as top 10 finalists. (2019)
- Honorable Mention in the World Asian Case Competition conducted by the Academy of Asian Business. (2019)
- Appointed the Vice-Chairperson for the Hong Kong Institution of Engineers CUHK Student Chapter. (2017-2018)
- Organized events to promote cultural integration and internationalization throught the i-Ambassadors scheme at The Chinese University of Hong Kong. (2018)
- Co-founder and Creative Director for the Association of Indian Students at The Chinese University of Hong Kong. (2016-2018)
- Member of the Toastmasters International at United College, CUHK. (2017-2018)