

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 EXPERIENCE

- The Chinese University of Hong Kong, Hong Kong** August 2020 – August 2021
Full-time Research Assistant (Supervisor: Professor Helen Meng)
- Worked in the field of Dialog Systems, Cross-lingual Hyperbolic Word Embeddings, and Natural Language Processing
 - Published paper at Dialog Systems Technology Challenge 9 (DSTC9) workshop at AAAI 2021
 - 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
 - Developed and deployed text and speech-based deep learning models in-production as web-APIs containerized using Docker
 - Conducted API load testing using Apache JMeter
 - Developed dashboard for monitoring and managing the deployed asynchronous web-APIs
 - Designed and conducted AI workshops for school teachers and students
 - Maintained and configured GPU servers for model development, training, and deployment
- 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](https://arxiv.org/abs/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

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| • 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

- Nominated for Cyberport University Partnership Programme (CUPP) by CUHK. (2020)
- 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 through 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)
- Volunteered for beach cleanup organized by Hong Kong Cleanup and Youth Empact. (2016)