

# Mudit Chaudhary

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## EDUCATION

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| <b>University of Massachusetts, Amherst, MA, USA (Incoming)</b>                 | 2021 - 2023 |
| Master of Science, Computer Science with concentration in Data Science          |             |
| <b>The Chinese University of Hong Kong, Hong Kong</b>                           | 2016 - 2020 |
| Bachelor of Science, Computer Science with concentration in Intelligent Science |             |
| Minor: Data Analytics and Informatics   |             |

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## PROFESSIONAL AND EXPERIENCE

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| <b>The Chinese University of Hong Kong, Hong Kong</b>  | August 2020 – August 2021    |
| <i>Full-time Research Assistant (Supervisor: Professor Helen Meng)</i>   |                              |
| <ul style="list-style-type: none"><li>• Worked in the field of Dialog Systems, Cross-lingual Hyperbolic Word Embeddings, and Natural Language Processing</li><li>• Published paper at Dialog Systems Technology Challenge 9 (DSTC9) workshop at AAAI 2021</li><li>• 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</li><li>• Developed and deployed text and speech-based deep learning models in-production as web-APIs containerized using Docker</li><li>• Conducted API load testing using Apache JMeter</li><li>• Developed dashboard for monitoring and managing the deployed asynchronous web-APIs</li><li>• Designed and conducted AI workshops for school teachers and students</li><li>• Maintained and configured GPU servers for model development, training, and deployment</li></ul> |                              |
| <b>Logistics and Supply Chain MultiTech (LSCM) R&amp;D Centre, Hong Kong</b>   | June 2019 - August 2019      |
| <i>Summer Intern (Supervisor: Dr. Dorbin Ng)</i>   |                              |
| <ul style="list-style-type: none"><li>• Performed research, developed and trained the Transformer NMT model and Deep Learning Sequence Models for domain-specific translation</li><li>• Performed feasibility analysis and generated computational resource estimations for the models</li><li>• Planned and developed Deep Learning Models to learn non-verbal features in conversational setting for chatbot augmentation</li></ul>  |                              |
| <b>The Chinese University of Hong Kong, Hong Kong</b>  | February 2019 - August 2019  |
| <i>Part-time Research Assistant (Supervisor: Professor Bei Yu)</i>   |                              |
| <ul style="list-style-type: none"><li>• Assisted research on 'Faster Region-Based Hotspot Detection using Deep Learning'</li><li>• Learned about two-stage object detection models: Faster-RCNN</li><li>• Updated the codebase to support Python 3</li></ul>   |                              |
| <b>First Code Academy, Hong Kong</b>   | June 2018 - August 2018      |
| <i>Summer Intern</i>   |                              |
| <ul style="list-style-type: none"><li>• Taught programming skills to students, including Python, HTML/CSS, microcontrollers, app development, and VR</li><li>• Responsible for course creation and periodically communicating students' performance with their parents</li><li>• Assisted in the creation &amp; organization of Standard Onboarding Procedures</li></ul>   |                              |
| <b>Centre for Global Health, The Chinese University of Hong Kong</b>   | August 2017 - September 2017 |
| <i>Front-end web developer</i>   |                              |
| <ul style="list-style-type: none"><li>• Comprehensively updated over 104 webpages, which included creating and remodeling the content as well as the design style enhancing the user experience significantly</li></ul>  |                              |

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## 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)