





# Yuen-Hei Yeung

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## EDUCATION

<b>Courant Institute of Mathematical Sciences, New York University</b> Master of Science in Computer Science, CGPA 4.0/4.0   Coursework: GPU Architecture ( <a href="#">Project</a> )	New York, United States Sep 2024 – May 2026
<b>City University of Hong Kong</b> Bachelor of Science in Computer Science, CGPA 3.52/4.30	Hong Kong S.A.R., China Sep 2018 – May 2022

## RESEARCH EXPERIENCE

<b>Agentic Learning AI Lab, NYU Courant Institute</b> <i>Research Assistant</i> under Prof. Mengye Ren • Working on <b>self-supervised learning</b> method on dynamics planning for <b>imitation learning</b>	New York, United States Dec 2024 – Present
<b>Nvidia AI Technology Center</b> <i>Research Assistant</i> under Prof. Charles K.C. Cheung • Extended SVD-based <b>transfer learning</b> methods for CNNs to transformer-based models on object detection tasks, obtained 2% improvements on top-1 accuracy with 10x fewer parameters than original fine-tuning	Hong Kong S.A.R., China Jun 2023 – Aug 2023
<b>Wu Lab, School of Molecular and Cellular Biology, UIUC</b> <i>Research Assistant</i> under Prof. Nicholas C. Wu • Implemented random forests (PR AUC 67%) in Keras and pre-trained protein-sequence language model e.g. ESM (PR AUC 75%) for ‘vaccine antibody-human antigen’ binding prediction	Illinois, United States Jul 2022 – Dec 2022
<b>Department of Computer Science, City University of Hong Kong</b> <i>Research Assistant</i> under Prof. Rynson W.H. Lau • Constructed 2 datasets (over 4k images) for ‘Transparent Object Detection’ with depth maps and semantic segmentation • Proposed transformer-based model for ‘Transparent Object Detection’ with 3% improvements against STOA IoU	Hong Kong S.A.R., China Apr 2021 – Jun 2022

## MANUSCRIPTS

Y. Wang, H. Lv, R. Lei, <b>Y.H. Yeung</b> et al., <i>An explainable language model for antibody specificity prediction using curated influenza hemagglutinin antibodies</i>	<a href="#">Immunity</a> Aug 2024
<b>Y.H. Yeung</b> , Stella X.H. Zhu, George Z.J. Chen et al., <i>Method for Roadside Sensor Placement Optimization with Reinforcement Learning in Simulation</i> (submitted to US and China; projected publication date Jul 2025)	<a href="#">Patent</a> Oct 2023
J. Lin*, <b>Y.H. Yeung*</b> , R. Lau, <i>Exploiting Semantic Relations for Glass Surface Detection</i>	<a href="#">NeurIPS</a> Nov 2022
J. Lin*, <b>Y.H. Yeung*</b> , R. Lau, <i>Leveraging RGB-Depth with Cross-Modal Context for Glass Surface Detection</i>	<a href="#">AAAI</a> Jun 2022

## WORK EXPERIENCE

<b>Hong Kong Hospital Authority</b> <i>Research Officer</i> in AI & Data Collaboration Lab • Developed <b>LLM</b> applications with <b>LangChain</b> that processes 1.2M quarterly medical transactions for over 40 hospitals • Trained <b>YOLOv5</b> for parasite classification and obtained 98.6% accuracy	Hong Kong S.A.R., China Oct 2023 – Aug 2024
<b>Hong Kong Applied Science and Technology Research Institute</b> <i>Engineering Associate</i> in Smart Mobility Technologies Group • Reproduced academic papers for product development, extended with <b>patent</b> invention • Developed <b>backend</b> integration of Smart Mobility simulators (CARLA and SUMO) using <b>Flask</b>	Hong Kong S.A.R., China Apr 2023 – Oct 2023
<b>Siemens Ltd.</b> <i>Engineer Assistant Intern</i> in Department of Smart Infrastructure • Built CMS <b>frontend</b> for energy consumption monitoring using <b>Angular</b> • Developed automation script for data pre-processing in <b>Python</b> (reducing man-days from 30 to 1)	Hong Kong S.A.R., China Jun 2020 – Jun 2021

## COMMUNITY & LEADERSHIPS

<b>National Academy of Engineering Graduate</b> , Grand Challenges Scholars Program	Nov 2022
<b>Google Developer Groups Core Team Member</b> , Google Developer Student Club	Sep 2020 – Aug 2021
<b>City University of Hong Kong Teaching Assistant</b> , CS2312 Problem Solving and Programming in Java	Sep – Dec 2020
<b>City University of Hong Kong Mentor</b> , Student Mentoring Scheme	Sep 2019 – May 2022
<b>City University of Hong Kong 3<sup>rd</sup> place</b> , CityHack (developed crowd counting prototype for seat management)	Jan 2019