

# PAK HEI (HUGO) YEUNG

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Webpage: <https://pakheiyung.github.io/>

The Institute of Biomedical Engineering  
University of Oxford

## EDUCATION

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<b>DPhil University of Oxford</b> Doctor of Philosophy in Engineering Science Supervised by Dr. Ana Namburete and Dr. Weidi Xie	<i>2018 - Present</i>
<b>BEng University of Hong Kong</b> Bachelor of Engineering (Medical Engineering) <i>First Class Honours</i>	<i>2013 - 2018</i>

## MAJOR AWARDS

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<b>Master's Award</b> Pembroke College, University of Oxford	<i>2022</i>
<b>STEM for BRITAIN Finalist</b> National scientific competition for early-career researchers	<i>2022</i>
<b>Honourable Mention Award</b> The 10 <sup>th</sup> Doctoral Research Awards	<i>2021</i>
<b>The R C Lee Centenary Scholarship</b> Full scholarship for DPhil study	<i>2018 - Present</i>
<b>Dean's Honours List</b> For 4 consecutive years	<i>2013 - 2017</i>
<b>Student Project Prize</b> Hong Kong Medical and Healthcare Device Industries Association	<i>2017</i>
<b>Overseas Scholarship</b> Undergraduate Research Fellowship Programme	<i>2016</i>

## PROFESSIONAL EXPERIENCE

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<b>Bio-Totem Limited, China</b> Position: Research Assistant <ul style="list-style-type: none"><li>Developing deep learning algorithm for automated cancer diagnosis</li></ul>	<i>2017 - 2018</i>
<b>Invitrocue Limited, Singapore</b> Position: Research Assistant <ul style="list-style-type: none"><li>Developing system for automated rheumatoid arthritis diagnosis</li></ul>	<i>2016 - 2017</i>

## PUBLICATIONS (FIRST AUTHOR)

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**Pak Hei Yeung**, Linde Hesse, Moska Aliasi, Monique Haak, The INTERGROWTH-21<sup>st</sup> Consortium, Weidi Xie, and Ana IL Namburete. "ImplicitVol: Sensorless 3D Ultrasound Reconstruction with Deep Implicit Representation." *Arxiv preprint*, 2021.  
Project page: [https://pakheiyung.github.io/ImplicitVol\\_wp/](https://pakheiyung.github.io/ImplicitVol_wp/)

**Pak Hei Yeung**, Ana IL Namburete, and Weidi Xie. "Sli2Vol: Annotate a 3D Volume from a Single Slice with Self-Supervised Learning." In: *International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*, 2021.

Project page: [https://pakheiyung.github.io/Sli2Vol\\_wp/](https://pakheiyung.github.io/Sli2Vol_wp/)

**Pak Hei Yeung**, Moska Aliasi, Aris T. Papageorghiou, Monique Haak, Weidi Xie, and Ana IL Namburete. "Learning to map 2D ultrasound images into 3D space with minimal human annotation." *Medical Image Analysis* 70, 2021. (Impact factor ~11)

Project page: [https://pakheiyung.github.io/PlaneInVol\\_wp/](https://pakheiyung.github.io/PlaneInVol_wp/)

**Pak Hei Yeung**, York-Kiat Tan, and Shuoyu Xu. "Automated synovium segmentation in doppler ultrasound images for rheumatoid arthritis assessment." In *Medical Imaging 2018: Computer-Aided Diagnosis*, vol. 10575, p. 105750K. International Society for Optics and Photonics, 2018.

## TEACHING

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**Machine Learning – Undergraduate Course of Computer Science** 2021

Position: Class Tutor

- Providing overviews of different topics of machine learning in class
- Marking assignments

**Deep Learning – The Centre for Doctoral Training in Health Data Science** 2019

Position: Lab Demonstrator

- Developing the course and pre-study material
- Leading and assisting group discussion and project

## VOLUNTARY INVOLVEMENT

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**English for Speakers of Other Languages (ESOL) Courses** 2022 - Present

Position: Tutorial Helper

- Helping in ESOL courses for Hong Kong people in the UK
- Practicing oral English with participants in the courses

**Engineers Without Borders - Oxford (EWBOx)** 2021 - Present

Position: Tutor

- Giving machine learning lectures
- Providing feedback to students in helper sessions

**Hong Kong Red Cross Princess Alexandra School (Boarding Section)** 2014 - 2017

Position: Tutor

- Helping physically disabled students with their homework

## SKILLS

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**Language:** Chinese - Cantonese (Native), Chinese - Mandarin (Fluent), English (Fluent)

**Programming:** Python, MATLAB, PyTorch, TensorFlow

## INTEREST

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Volleyball, High Jump, Badminton, Bouldering, Origami