WEBER **LIU**

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EDUCATION

Bachelor of Science (Advanced)
University of Sydney (2015 – 2017)
Awards
- Deans List of Academic Excellence
- Vice Chancellor's Scholarship
- Sydney Medical School Summer Research Scholarship

Doctor of Medicine
University of Sydney (2018 – 2021 in progress)
Awards
- Deans List of Academic Excellence
- Vice Chancellor's Scholarship

Master of Science in Medicine (Clinical Epidemiology)
University of Sydney (2019 – 2021 in progress)

Higher School Certificate
Sydney Boys High School (2009-2014)
Awards
- 99.95 ATAR
- 19th in NSW (Chemistry)
- Lennie Basser Award for Scientific Initiative

SKILLS

- Programming in Java, C#, Python and MATLAB
- Front-end development in HTML/CSS/JS
- Unity 3D Development Certification ID: 201708UCD2659

PROFESSIONAL EXPERIENCE

Demonstrator, Tutor and Curriculum Development
(July 2017 – Current)

From Molecules to Ecosystems (BIOL1X01)
- Co-created tutorial series involving protein visualisation in Virtual Reality (Blender 3D, ePMV, Unity and Oculus) and analysed student unit feedback
- Redesigned tutorial series based on prior feedback, taught game design principles

Human biology (BIOL1X07/MEDS1X01)
- Developed and coordinated a tutorial series on science communication (Adobe Slack) and data visualisation and java programming (Processing) to over 200 students involving live programming workshops
- Ran a weekly 'Ask Weber' tutorial series to support students in understanding concurrent lectures and concepts in human biology via Zoom (throughout 2020 lockdown)
- Attended curriculum development meetings with Educational designers and researchers to optimise workshop structure and learning for the new curriculum

Key concepts in Physiology (PHSI2X07/MEDS2X01)
- Developed and delivered a 4-day Arduino maker workshop to both medical science and medical (MD) students

Frontiers in Whole Body Physiology (PHSI3X11)
- Project lead in Virtual Reality game development (Blender 3D, Unity, C#), coordinating 16+ students in experiment planning and development and data collection and analysis (Zephyr activity tracker)

INVOLVEMENT AND EXPERIENCES

Discipline of Biomedical Informatics and Digital Health (USYD) research elective student
(January 2021 – Current)
- Worked on system for automated pharmaceutical adverse event signal detection using structured clinical data from Clinicaltrials.gov
- Gained experience with matplotlib and methods of meta-analysis

foundationsofmedicine.github.io
(January 2021 – Current)
- Established a group of fellow medical students and doctors to develop clinical and basic science resources to improve medical education

ACRF Image-X Institute research student
(November 2018 – February 2019)
- Investigated the use of PCA methods in markerless modelling of patient-specific motion for real-time radiotherapeutic treatment of Lung cancer.
- Worked with 4D cone-beam CTs in MATLAB and Slicer3D

University of Sydney ICT TechLab / School of Medical Sciences volunteer project manager and developer
(May 2017 – July 2018)
- Collaborated with Ramus media and managed the back-end development of Many hands make light work instalment for Vivid in World Square
- Developed a Virtual Reality application for demonstration at the University of Sydney Vice Chancellor's Recognition Reception to over 100 USYD alumni
- Managed 10+ first-year students and taught 3D modelling and Virtual Reality (Oculus) and Augmented Reality (Vuforia)

Biosciences Education Australia Network (BEAN) Forum presenter
(December 2017 – December 2018)
- Ran a workshop and 2-day demonstration of VR applications for over 50 tertiary lecturers across Australia