CHARLIE HEWITT
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PROFILE

I'm a 23 year old computer scientist based in the UK. I graduated in 2018 with a master's degree in computer science from the University of Cambridge and have been involved in a number of projects at different institutions since then. I'm hoping to pursue a career in research and am looking for full time positions starting in January 2020. I'm particularly interested in graphics, computer vision and machine learning. A portfolio of my recent work is available at chewitt.me.

EXPERIENCE

RESEARCH CONSULTANT - MICROSOFT - SUMMER 2019

Three months with the Cognition research and development team based at Microsoft's lab in Cambridge, working on application of machine learning to problems in computer graphics and vision.

RESEARCH ASSISTANT - COMPUTATIONAL MEDIA INNOVATION CENTRE - 2019

Three month RA position at the CMIC, Victoria University of Wellington in New Zealand, working with researchers and industry partners. Independent project work on computer vision techniques for omnidirectional stereoscopic video and its application to immersive mixed reality experiences.

RESEARCH INTERN - MICROSOFT RESEARCH - 2018

Six month internship at Microsoft Research in Cambridge working on near-eye holographic display technologies for mixed reality. Development of hologram design algorithms and prototyping of holographic display systems, independent work within a small team, contributed to two patents relating to holographic and near-eye displays..

INTERN - CYDAR - SUMMER 2017

Two month internship working at Cydar in Cambridge, helping to develop imaging technologies for surgeons to use in the OR. Software development work focussing on web-based technologies and user interaction.

INTERN - JAGEX GAME STUDIOS - SUMMER 2016

Three month internship within the web team at Jagex, focussed on projects involving the exploration of potential future business opportunities. Working as part of a small team to develop prototype web-based software.

EDUCATION

TRINITY HALL, UNIVERSITY OF CAMBRIDGE - 2014-2018

MEng (distinction - 87%) in computer science

Research focussed masters involving lectures as well as independent research projects and a thesis. Courses: Affective Computing, Computer Vision, Probabilistic Machine Learning, Advanced topics in mobile and sensor systems and data modelling and Interaction with machine learning. My thesis was looking at facial alignment, involving application of machine learning to computer vision.

BA (first class) in computer science

Diverse three year course covering topics ranging from physics and computer hardware design to machine learning and human computer interaction.

JOHN HAMPDEN GRAMMAR SCHOOL - 2007-14

A Level

- A* in Mathematics, Further Mathematics and Chemistry
- A in Physics

AS Level

- A in Mathematics, Further Mathematics, Chemistry, Physics and Geography

SKILLS

- Programming in Python, C#, C/C++, Java, MATLAB, Objective-C, CUDA, GLSL, Swift and SML/OCaml.
- Application of machine learning using tools such as SciKit, Keras, (Py)Torch, OpenCV and TensorFlow, primarily in the context of computer vision.
- Source code management using Git.
- Deploying software to a number of platforms including Windows, iOS and Android devices.
- Using HTML/CSS, PHP and JavaScript in the production of websites, including use of frameworks such as React, Angular, Bootstrap and Foundation.
- Database management using SQL.
- Knowledge of holography and experience working in optical labs.
- Graphical design experience including UI, UX and icon design using Adobe Photoshop.
- Proficient user of Mac OS, Linux and Windows operating systems.
- Extensive experience with Microsoft Excel, as well as word processing including use of LaTeX.

RESEARCH

ASSESSING PUBLIC PERCEPTION OF SELF-DRIVING CARS: THE AUTONOMOUS VEHICLE ACCEPTANCE MODEL
Charlie Hewitt, Ioannis Politis, Theo Amanatidis, Advait Sarkar - Intelligent User Interfaces 2019

HEAD POSE ESTIMATION AND FACIAL LANDMARK LOCALISATION FOR ANIMALS
Masters Dissertation - Supervised by Marwa Mahmoud - University of Cambridge 2018

SHAPE-ONLY FEATURES FOR PLANT LEAF IDENTIFICATION
Masters Project - Advised by Marwa Mahmoud - University of Cambridge 2018

CNN-BASED FACIAL AFFECT ANALYSIS ON MOBILE DEVICES
Masters Project - Advised by Hatice Gunes - University of Cambridge 2018

CONFIDENCE MEASURES FOR CNN CLASSIFICATION USING GAUSSIAN PROCESSES
Masters Project - Advised by Damon Wischik - University of Cambridge 2018

PROCEDURAL GENERATION OF TREE MODELS FOR USE IN COMPUTER GRAPHICS
Undergraduate Dissertation - Supervised by Gyorgy Denes - University of Cambridge 2017

REFERENCES

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