

Erroll Wood

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Gonville & Caius College · Cambridge · CB2 1TA

EDUCATION

Cambridge University, Gonville & Caius College 2009 – present

PhD in progress – *Computer Science*, supervisor: Peter Robinson 2016
Dissertation: GAZE ESTIMATION USING LEARNING-BY-SYNTHESIS AND ANALYSIS-BY-SYNTHESIS.

MEng, Distinction – *Computer Science Tripos Part III* 2013
Dissertation: GAZE ESTIMATION FOR PORTABLE DEVICES. A gaze-tracking system suited for commodity portable devices, taking the limited image sensors and typical use environments into account (supervisor: Andreas Bulling).

BA, Class I – *Computer Science Tripos Part II* 2012
Dissertation: 3D FRACTAL EXPLORATION USING A SCALE-ADAPTIVE SPARSE VOXEL OCTREE. A system for procedurally generating and rendering 3D fractals in real time, with performance independent of the scale they are explored at (supervisor: Alex Benton).

St Paul's School, London 2004 – 2009

A-Levels: A in Maths, Further Maths, Physics and Computing [A2], A in Economics [AS]

INTERNSHIPS

Microsoft Research Cambridge – Intern Winter 2015

Used a hand-tracker to explore the effects of different types of virtual hand embodiments on remote collaboration for large displays (host: Jamie Shotton).

Cambridge University Computer Lab – Research intern Summer 2013

Developed a collection of interactive networked office noticeboards to facilitate remote communication and group awareness (NetBoards). These have been in constant use for three years.

Qualcomm Research, Cambridge – Software engineer intern Summer 2012

Developed Android clients to showcase and test context-aware services. Researched privacy concerns for Android, focussing on context-aware data collection.

Credit Suisse – Lead software engineer intern Summer 2011

Lead developer in a team of 13 interns. Developed a real-time server monitoring web-app which was deployed by the company.

Succeed Consultancy – Software engineer intern Summer 2010

Produced plug-ins and unit tests for load-testing employee management software.

Symbian Foundation – Work experience Summer 2009

Documented the process of porting Flash apps to Flash Lite for mobile.

Microsoft Research Cambridge – Work experience Winter 2008

Developed a Flash web applet for the Environmental Science Dept. to help present their study on birds' flight patterns.

PUBLICATIONS

Efficient and Precise Interactive Hand Tracking Through Joint, Continuous Optimization of Pose and Correspondences 2016

J. Taylor, L. Bordeaux, T. Cashman, B. Corish, C. Keskin, T. Sharp, E. Soto, D. Sweeney, J. Valentin, B. Luff, A. Topalian, E. Wood, S. Khamis, P. Kohli, S. Izadi, R. Banks, A. Fitzgibbon, J. Shotton
SIGGRAPH, 2016 (to appear)

A 3D Morphable Model of the Eye Region 2016

Erroll Wood, Tadas Baltrusaitis, Louis-Philippe Morency, Peter Robinson, Andreas Bulling
Eurographics, 2016, poster

Learning an Appearance-Based Gaze Estimator from One Million Synthesized Images 2016

Erroll Wood, Tadas Baltrusaitis, Louis-Philippe Morency, Peter Robinson, Andreas Bulling
Eye Tracking Research & Applications, 2016, Emerging Investigator Award

Rendering of Eyes for Eye-Shape Registration and Gaze Estimation 2015

E. Wood, T. Baltrusaitis, X. Zhang, Y. Sugano, P. Robinson, and A. Bulling
International Conference on Computer Vision, 2015, poster

NetBoards: Investigating a Collection of Personal Noticeboard Displays in the Workplace 2014

Erroll Wood and Peter Robinson
Interactive Tabletops & Surfaces, 2014, invited demo

EyeTab: Model-based gaze estimation on unmodified tablet computers 2014

Erroll Wood and Andreas Bulling
Eye Tracking Research & Applications, 2014

AWARDS & ACHIEVEMENTS

EPSRC Doctoral Training Studentship 2013

Gonville & Caius College Scholar 2012

2nd Year Group Project Prize 2012

British Informatics Olympiad, National Finalist 2009

Duke of Edinburgh's Award, Gold Level 2008

Arkwright Engineering Scholar under Microsoft Research Cambridge 2007

OTHER ACTIVITIES

University Teaching 2013 – present

Taught Computer Vision, Graphics, and Artificial Intelligence to undergraduates for over 100 hours, supervised final year projects, managed interns, and performed admissions interviews.

Gonville & Caius May Ball Committee – Web & Systems 2011 – 2014

Developed websites for two May Balls, handling ticketing, staffing, and exploring the themes. Implemented a networked mobile ticket scanning system for speeding up entry.

Game Development – Indie Game Developer 2005 – 2010

Developed many web-based minigames using Flash. These were distributed over the internet, generating revenue via sponsorship and advertising.

(last updated June 23, 2016)