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.

BA, Class I – *Computer Science Tripos Part II*   2012
Dissertation: 3D FRACTAL EXPLORATION USING A SCALE-ADAPTIVE SPARSE VOXEL OCTREE.

St Paul's School, London   2004 – 2009

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

ShadowHands: High-Fidelity Remote Hand Gesture Visualization using a Hand Tracker
Erroll Wood, John Fogarty, Andrew Fitzgibbon, Jamie Shotton
Interactive Surfaces & Spaces (ISS), 2016, to appear

A 3D Morphable Eye Region Model for Gaze Estimation
    Erroll Wood, Tadas Baltrusaitis, Louis-Philippe Morency, Peter Robinson, Andreas Bulling
    European Conference on Computer Vision (ECCV), 2016, poster (to appear)

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

Learning an Appearance-Based Gaze Estimator from One Million Synthesized Images
    Erroll Wood, Tadas Baltrusaitis, Louis-Philippe Morency, Peter Robinson, Andreas Bulling
    Eye Tracking Research & Applications (ETRA), 2016, **Emerging Investigator Award**

Rendering of Eyes for Eye-Shape Registration and Gaze Estimation
    E. Wood, T. Baltrusaitis, X. Zhang, Y. Sugano, P. Robinson, and A. Bulling
    International Conference on Computer Vision (ICCV), 2015, poster

NetBoards: Investigating a Collection of Personal Noticeboard Displays in the Workplace
    Erroll Wood and Peter Robinson
    Interactive Tabletops & Surfaces (ITS), 2014, invited demo

EyeTab: Model-based gaze estimation on unmodified tablet computers
    Erroll Wood and Andreas Bulling
    Eye Tracking Research & Applications (ETRA), 2014

AWARDS & ACHIEVEMENTS

EPSRC Doctoral Training Studentship	2013
Gonville & Caius College Scholar	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*
    Designed the undergraduate Graphics practical course for 2016. Taught Computer Vision, Graphics, and AI 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 September 1, 2016)