

Sam HEALER

PERSONAL

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INTERNSHIPS

- JUNE-SEPT 2015 | Summer research project at UNIVERSITY OF BRISTOL
Mood and Decision-making Study
Created web-based study to measure respondents' reaction times to answering questions and categorising moving dots.
- JUNE-SEPT 2014 | Summer Intern at THE TECHNOLOGY STUDIO
Individual work: created proof of concept Glassware for Google Glass, both native (Android SDK and GDK) and using Xamarin (C#). Team work: Developed augmented reality mapping service with OpenCV and Tesseract.
- JUNE-SEPT 2013 | Summer Intern at EARTHWARE
Individual work: Developed proof of concepts as part of client work for Transport for London. Created sample applications for various Google Maps tools such as custom Street View displays.
- JUNE-SEPT 2012 | Summer Intern at EARTHWARE
Team work: Worked as part of a team on developing the road race maps for the London 2012 website.

EDUCATION

- 2012-2016 MEng in COMPUTER SCIENCE, **University of Bristol**
Late-breaking work paper accepted to SIG CHI 2016
Awards: IPL Prize for Best Third Year Group Project
Netcraft prize for Top 10 2nd Year Students in Computer Science
First class mark achieved each year.
- 2009-2011 **A-Levels**
A* (Mathematics), 3 As (Computing, Politics, Economics)
Awards: Barclays Cup for Information Technology.
- 2007-2010 **GCSEs**
5 A*s, 3 As, 2 Bs

RECENT PROJECTS

- Trenchmill:** | Third year group games project, developed in Unreal with C++.
Trenchmill is an immersive 3D video game where the player moves through the trenches and no man's land of World War 1, using a treadmill to control their character, and wearing a heart rate monitor to modify the game as it plays. Personally responsible for sound design, sockets and networking implementation, creating no man's land level, and general programming

Brainslice:	Second year group project, developed with Java, the Android SDK, and Blender. BrainSlice is an Android app designed to teach children about the brain. Using a 3D model, users can move their phone around someone's head to give the illusion of a window through the skull, into the brain itself. BrainSlice is available on the Google Play Store here: https://goo.gl/cfPqtB
YOLO (for Glass):	Developed with Java, the Android SDK, the Glass Development Kit, Xamarin, and C#. YOLO (for Glass) is a Glassware designed for monitoring a Twitter feed whilst giving some form of presentation. With a given hashtag (dictated to the app using Glass's speech recognition), YOLO (for Glass) displays the latest tweets with that hashtag, moving through them/refreshing them when the user blinks/double blinks, using Glass's private eye gesture detection API.

OTHER PROJECTS

- **Seemoji:** Android app created in 2015 appathon, a keyboard service in Android to detect and send emoji determined by the user's facial expression.
- **Sound Invaders:** Android app created in a 2014 appathon, an arcade game generated from the user's music
- Lattice Boltzmann Method calculations on a supercomputer using C, OpenMP, MPI, and OpenCL
- Feature detection and live gesture detection using C and OpenCV
- Various personal and freelance web applications, variously using PHP or Node.js, with front-end HTML/CSS/Javascript

VOLUNTEERING AND ACTIVITIES

2014-2015	CS Visit Days: I give the student portion of the weekly visit day talk to potential new students, speak to the applicants in small groups personally, and help in the organisation of the day itself.
2015	Access To Bristol: Helped teach sixth formers to use Python to simulate the spikes of firing neurons as part of a scheme to give secondary school children a chance to see what subjects at university are like.
2013-2014	Secretary, Fine Film Society: Suggested films for screenings, organised screenings and publicity.