| Contact<br>Information | Mobile: 07912369997<br>E-mail: jabooth@gmail.com  | jamesabooth.com<br>github.com/jabooth   |  |
|------------------------|---|---|--|
| Current<br>Position    | Oculus VR, Zürich, Switzerland  | September 2017 -  |  |
|                        | Software Engineer, Computer Vision Team   |   |  |
| Recent<br>Publications | <b>3D Face Morphable Models "In-the-Wild"</b> – (spotlight presentation) – J. Booth, E. An-<br>tonakos, S. Ploumpis, G. Trigeorgis, Y. Panagakis, S. Zafeiriou, Proceedings of IEEE Intl Conf.<br>on Computer Vision and Pattern Recognition (CVPR), July 2017 (arXiv:1701.05360)   |   |  |
|                        | Large Scale 3D Morphable Models – J. Booth, A. Roussos, A. Ponniah, D. Dunaway, S. Zafeiriou, International Journal of Computer Vision (IJCV), April 2017. Featured in Science Magazine: http://bitly.com/2prec9q   |   |  |
|                        | A 3D Morphable Model learnt from 10,000 faces – (spotlight presentation) – J. Booth, A. Roussos, S. Zafeiriou, A. Ponniah, D. Dunaway, Proceedings of IEEE Intl Conf. on Computer Vision and Pattern Recognition (CVPR), July 2016  |   |  |
|                        | Menpo: A Comprehensive Platform for Parametric Image Ali<br>Deformable Models – J. Alabort-i-Medina, E. Antonakos, J. Booth, I<br>Proceedings of the ACM International Conference on Multimedia, 679-66   | <b>ignment and Visual</b><br>P. Snape, S. Zafeiriou,<br>82  |  |
| Education              | <ul> <li>PhD Imperial College London</li> <li>Investigating the construction and usage of massive-scale 3D Morphakels that decompose an arbitrary face into bases of shape, texture, and</li> <li>Qualcomm Innovation Fellowship Overall European Winner 2015</li> <li>EPSRC DTA Scholarship</li> <li>A core developer of <i>The Menpo Project</i>, a Python platform to facilia and fitting of statistical models on images and 3D meshes. Include Active Appearance Models, Constrained Local Models, the Supervise 3D Morphable Model fitting. Menpo was a finalist in the ACM M Source Software Competition.</li> <li>One of <i>Menpo</i>'s goals is to promote high software engineering state community by following best practice from industry. Responsible tranging from software design patterns to effective version control.</li> </ul> | October 2013 -<br>ble Models, facial mod-<br>d expression<br>litate the construction<br>es implementations of<br>ed Decent Method and<br>fultimedia 2014 Open<br>dards in the academic<br>for teaching key skills |  |
|                        | <ul> <li>MSc, Computing Science, Distinction Imperial College London</li> <li>Distinguished Individual Project 86% – Constructing 3D Morphable pressing Emotion</li> <li>The Philips Group Project Prize in Computing Science – Doctor Toda Medical Support System</li> <li>Examinations 78% – including Graphics (93%) Algorithms (79%) and</li> <li>Imperial College Student Opportunities Fund Masters Award</li> <li>Grundy Educational Trust Award</li> <li>Ogden Trust Scholarship</li> </ul>   | <b>2011 - 2012</b><br>Models Capable of Ex-<br>ny - A Next Generation<br>d Logic (78%)  |  |
|                        | <ul> <li>BSc, Physics, First Class Honours (Av. 77%) Imperial College Lo</li> <li>Final year project 84% – Modelling Evolution - A Simulation Of Nat</li> <li>Ogden Trust Scholarship</li> <li>Institute of Physics Bursary</li> </ul>  | ndon <b>2008 - 2011</b><br>ural Selection   |  |
|                        | <ul> <li>A-Levels (5 A's) NEW College, Pontefract</li> <li>Physics 96%   Maths 95%   Further Maths 91%   Chemistry 92%   G</li> <li>Outstanding Student of the Year (academic achievement &amp; leadership)</li> </ul>  | <b>2006 - 2008</b><br>General Studies 90%<br>p of student body)   |  |
|                        | <ul> <li>GCSEs (11 A*'s) The King's School, Pontefract</li> <li>No. 1 student in UK - Applied ICT (100%)</li> <li>Top 5 student in UK - Mathematics (99%)</li> </ul>  | 2001 - 2006   |  |

Previous EXPERIENCE Oculus VR, Menlo Park, CA

Internship, Computer Vision Team

### **Longbow Assessments**

Co-founder, Technical lead

- Side venture founded with one other focused on providing bespoke online assessments.
- Solely responsible for designing and implementing a full-stack web application. Key technologies: React/Redux front-end, Node/Typescript/PostgreSQL back-end.
- Thousands of candidates were successfully assessed using our software.

#### Craniofacial Unit, Great Ormond Street Hospital

Honorary Group Member

- Joined the group as part of a collaboration between Great Ormond Street and iBUG to investigate the possibility of using statistical models of faces to help guide surgeons performing corrective surgery on children with facial deformities
- Steward of MEIN3D, a database of 12,000 3D facial meshes
- Future work will involve investigating and quantifying the differences that age, gender, ethnicity, and medical conditions play in the appearance of the human face

### iBUG, Imperial College London

# October 2012 - October 2013

June - August 2012

Research Assistant

- Explored a novel approach for establishing dense correspondence between 3D meshes of emotive faces using surface geodesics
- Co-founded The Menpo Project
- Helped run an extensive 3D recording experiment looking to capture spontaneous human emotion

### Visionmetric, University of Kent

## Research Intern

• Investigated the possibility of accurately recovering full RGB colour information from black and white facial images through the application of a Principal Component Analysis based statistical model

| Other                          | Landmarker.io, a 3D mesh annotation web application  | October 2013 -                                  |  |
|--------------------------------|--|---|--|
| Projects                       | <ul> <li>Allows anyone with a browser to annotate points on meshes and ima<br/>efficient collection of data critical for numerous computer vision and m</li> <li>WebGL client written in Typescript — server written in Python</li> </ul>  | iges, allowing for the<br>achine learning tasks |  |
| Technical<br>Skills            | Fluent in Python and modern Javascript/Typescript. Experience in C, C++, OpenGL, Swift, Objective C, Java, and Matlab. Typically average 1,500 open source contributions a year.   |   |  |
| Positions of<br>Responsibility | Imperial College: Computing PhD Representative (elected)   | 2013 - 2017                                     |  |
|                                | Imperial College: Physics Year Representative (elected)  | 2008 - 2010                                     |  |
|                                | <b>NEW College:</b> Student President and College Governor (elected)   | 2007 - 2008                                     |  |
| Interests &<br>Achievements    | <ul> <li>Sports: Keen cyclist and runner. Duke of Edinburgh Gold Award &amp; all-time high school 200m record holder. Recently began competing in Triathalons. Getting faster, slowly but surely.</li> <li>Music: Competed at numerous national brass championships playing Flugel Horn with Crofton Silver Band over four years. Achieved Grade 6 Flugel Horn &amp; Grade 5 Musical Theory</li> </ul> |   |  |

Languages: A\* GCSE French & basic German

May - July 2017

December 2015 - 2017

June 2013 - August 2017