Jhony Kaesemodel Pontes

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Research Interests

3D Computer Vision, Machine Learning

Education

Ph.D. in Computer Vision 10/2015 – 08/2019
"3D shape representation and reconstruction from images"
Supervised by Clinton Fookes, Anders Eriksson, and Sridha Sridharan
Queensland University of Technology (QUT), Brisbane, Australia

Visiting Research Scholar 01/2017 – 07/2017
Research on 3D reconstruction at the CI2CV Computer Vision Lab
Supervised by Simon Lucey
The Robotic Institute, Carnegie Mellon University (CMU), Pittsburgh, USA

M.Sc. in Electrical Engineering 04/2013 – 12/2014
"Hierarchical age estimation based on global and local features from facial images"
Supervised by Alessandro Koerich and Clinton Fookes
Federal University of Paraná (UFPR), Curitiba, Brazil

B.E. in Computer Engineering 02/2007 – 12/2012
Pontifical Catholic University of Paraná (PUCPR), Curitiba, Brazil

Exchange Program in Electrical Engineering 08/2010 – 06/2011
Czech Technical University (CTU), Prague, Czech Republic

Technical in Mechatronics 02/2003 – 07/2004
Ensitec High School and Professional Education, Curitiba, Brazil

Experience

Argo AI — Pittsburgh, USA
Postdoctoral Research Scientist 09/2019 – current
- Research on 3D perception for self-driving systems

PRO Unlimited — Brisbane, Australia
Research Software Engineer @ Facebook Reality Labs 02/2019 – 06/2019
- Research on 3D reconstruction (part-time)

Facebook Reality Labs — Redmond, USA
Research Intern 06/2018 – 11/2018
- Research on 3D reconstruction

Queensland University of Technology — Brisbane, Australia
Machine Learning Tutor 02/2018 – 05/2018

Queensland University of Technology — Brisbane, Australia
Research Assistant 02/2016 – 04/2016
- Assistance in writing and revising a grant proposal for the Australian Research Council (ARC)

Groupe Renault — São José dos Pinhais, Brazil
Algorithm Engineer 06/2013 – 07/2015

- Model-based design of control systems for flex-fuel engines

Soditech — São José dos Pinhais, Brazil

Algorithm Engineer @ Groupe Renault   04/2012 – 06/2013

- Model-based design of control systems for flex-fuel engines

Medequip Systems (Airsys) — Curitiba, Brazil

Mechatronics Technician   05/2006 – 03/2012

- Design, development and production of medical ventilators

Skills

Programming Languages: Python, C++, Matlab

Software and Platforms: OpenCV, PyTorch, TensorFlow

Awards

Supervisor Top Up PhD Scholarship — Queensland University of Technology (QUT), 2018 to 2019

Science Without Borders scholarship — Ministry of Education of Brazil, 2015 to 2019

Erasmus Mundus EuBrazil StartUp scholarship — European Commission, 2010 to 2011

Best Student Award — Technical in Mechatronics, Ensitec, 2004

Publications

Conference papers

[1] Mateusz Michalkiewicz, **Jhony K. Pontes**, Dominic Jack, Mahsa Baktashmotlagh, Anders Eriksson, "Implicit surface representations as layers in neural networks", *International Conference on Computer Vision (ICCV)*, 2019.

[2] **Jhony K. Pontes**, Chen Kong, Sridha Sridharan, Simon Lucey, Anders Eriksson, Clinton Fookes, "Image2Mesh: a learning framework for single image 3D reconstruction", *Asian Conference on Computer Vision (ACCV)*, 2018.

[3] Dominic Jack, **Jhony K. Pontes**, Clinton Fookes, Anders Eriksson, Sareh Shirazi, Frederic Maire, "Learning free-form deformations for 3D object reconstruction", *Asian Conference on Computer Vision (ACCV)*, 2018.

[4] **Jhony K. Pontes**, Chen Kong, Anders Eriksson, Clinton Fookes, Sridha Sridharan, Simon Lucey, "Compact model representation for 3D reconstruction", *International Conference on 3D Vision (3DV)*, 2017.

[5] **Jhony K. Pontes**, Alessandro L. Koerich, Clinton Fookes, Alceu S. Britto Jr, "Two-stage facial age prediction using group-specific features", *International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2017.

Journals

[6] **Jhony K. Pontes**, Alessandro L. Koerich, Clinton Fookes, Alceu S. Britto Jr, "A flexible hierarchical approach for facial age estimation based on multiple features", Pattern Recognition, Volume 54, Pages 34-51, June 2016.

Patents

[7] Fabio Vicentini, **Jhony K. Pontes**, "Installation d'alimentation en carburant d'un moteur a combustion interne". Renault do Brasil S.A, France FR3043722A1, 2017.