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# José Alonso Solís-Lemus

## Education

- 2015–Exp **Ph.D., Biomedical Engineering**, *City, University of London*, London. 2019
- 2007–2013 **B.Sc., Applied Mathematics**, *Instituto Tecnológico Autónomo de México (ITAM)*, Mexico City, Hons.
- 2003–2008 **B.Eng., Telematics Engineering**, *Instituto Tecnológico Autónomo de México (ITAM)*, Mexico City, Hons.

#### **Publications**

- 2017 An objective comparison of cell-tracking algorithms, Ulman, Maška, Magnusson, Ronneberger, Haubold, Harder, Matula, Matula, Svoboda, Radojevic, Smal, Rohr, Jaldén, Blau, Dzyubachyk, Lelieveldt, Xiao, Li, Cho, Dufour, Olivo-Marin, Reyes-Aldasoro, Solís-Lemus, · · · and Ortiz-de-Solorzano, Nature Methods.
- 2017 Segmentation and Shape Analysis of Macrophages using Anglegram Analysis, Solís-Lemus, JA, Stramer, B, Slabaugh, G and Reyes-Aldasoro, CC, Journal of Imaging.
  Conference papers
- 2017 **Segmentation of Overlapping Macrophages Using Anglegram Analysis**, *Solís-Lemus, JA*, *Stramer*, *B*, *Slabaugh*, *G* and *Reyes-Aldasoro*, *CC*, Medical Image Understanding and Analysis, Edinburgh, Scotland, CCIS, Springer.
- 2015 Microfluidic environment and tracking analysis for the observation of *Artemia Franciscana*, *Solís-Lemus*, *JA*, *Huang*, *Y*, *Wlodkowic*, *D*, *Reyes-Aldasoro*, *CC*, British Machine Vision Conference, Swansea, Wales.

#### Submitted

2017 **Shape Analysis and Tracking of Migrating Macrophages**, *Solís-Lemus, JA*, *Stramer, B, Slabaugh, G and Reyes-Aldasoro, CC*, IEEE Symposium on Biomedical Imaging, WA, US.

#### Academic Activities

- 2018 Present **Sessional Tutor**, Foundation Mathematics / Statistics, Kaplan International College London, Dr Radmila Topalovic.
- 2016 Present **Graduate Teaching Assistant**, *Medical Imaging Modalities (BEng) / Medical Imaging (MEng)*, City, University of London, Dr Constantino Carlos Reyes-Aldasoro.
- 2016 Present **Graduate Teaching Assistant**, *Biosignal and Image Processing (BEng)*, City, University of London, Dr Constantino Carlos Reyes-Aldasoro.
  - 2014 Visiting Lecturer in Mathematics, Introduction to Mathematics (BSc), ITAM.
  - 2010/11 **Faculty assistant**, Advise on mathematical subjects to all students on campus, ITAM, Dr Cesar Luis García.

Volunteer work

2010-2012 **High-school teacher for adults**, Courses taught: Mathematics IV and V, Physics I and II, ITAM, Mexico.

# Professional Experience

2014 **Software Developer**, *Developer specialising in Java and working on network monitoring*, Eficiencia Informativa (transl. *Information Efficiency*), Carlos Fuentes.

#### Consulting

2014 **Research project assistant**, Feasibility study for the Puebla ITS Technologies Project with the assessing of the deployment and integration of intelligent transportation system technologies into the Bus Rapid Transit System, ITAM, Mexico, Dr Andre Possani Espinosa.

# Software development

- **Anglegram**, https://github.com/alonsoJASL/matlab.anglegram, MATLAB® package for shape analysis of binary images.
- 2015 **PhagoSight**, https://github.com/phagosight/phagosight, MATLAB® package for segmentation and tracking of fluorescent microscopy time-lapse sequences, Collaboration with CC Reyes-Aldasoro.

# Computer skills

Mathematics Matlab

Programming Java, C++, Python, Julia, bash

Statistics R, SAS, SPSS

Microsoft Office, Visual Basic

# Fellowships and Awards

2017 City Graduate School Conference Travel Bursary University of London

2015 PhD Studentship SMCSE. City, University of London

2014 Ex-ITAM Research Award in Technology and Engineering ITAM

2012/13 Engineering Students Academic Excellence Award ITAM

# Languages

Spanish Native language

English Proficient level: TOEFL iBT, 2014 (111/120); IELTS, 2014 (7.5/9)

German Beginner level: A1 Start Deutsch 1 (2008)

### Referees

- Dr Constantino Carlos Reyes-Aldasoro, Senior Lecturer, School of Mathematics, Computer Science and Engineering. City, University of London. reyes@city.ac.uk
- **Dr Greg Slabaugh**, Senior Lecturer, School of Mathematics, Computer Science and Engineering. City, University of London. gregory.slabaugh.1@city.ac.uk
- Dr Andre Possani, Course Director of Mechatronics Engineering, Department of Digital Systems. ITAM. possani@itam.mx
- Dr César Luis García, Course Director of Applied Mathematics, Department of Mathematics, Statistics. ITAM. clgarcia@itam.mx