Dr. Ricardo L. Colasanti

CONTACT Information

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Work:

UK

Department of Computer Science School of Engineering and Com-

puter Science University of Hull Cottingham Rd Hull

Hull HU6 7RX UK

Profile

I am a proficient and committed scientific researcher with extensive international expertise in scientific computing, in particular, scientific data analysis and modelling. I have a real passion for programming and research driven data analysis. I have worked on many research projects, all of which have contributed to my skills and provided intellectual challenge.

EDUCATION

University of Sheffield, Sheffield, UK

Ph.D. 2001

• Dissertation Topic: "Individual based models in plant ecology"

University of Cardiff, Cardiff, UK

M.Sc., Computing, Distinction, 2012

• Dissertation Topic: "A naive Bayesian classifier of bacterial Gram stain phenotypes from enzyme functional role"

University of Sussex, Brighton, Sussex UK

M.Sc., Evolutionary and Adaptive Systems (Computing), 1997

University of Cardiff, Cardiff, UK

Postgraduate Certificate in Education (PGCE) Post-Compulsory Education and Training (PCET, Level 7), Merit, 2015

Queen Elizabeth College, University of London, London UK

B.Sc., Microbiology

Honours and Awards EPAs Science and Technology Achievement Award (STAA) for the paper Changes in constructed Brassica communities treated with glyphosate drift (2012)

USA National Research Council Research Associateship Award (2003-2005)

British Council award AgResearch Palmerston North, New Zealand (1993)

EMPLOYMENT

Department of Computer Science, Hull University , Hull, UK Snr Research Officer Optimisation of deep learning for time-series classification	2019 -
$ \begin{array}{c} \textbf{Department of Computer Science,} \textbf{Swansea University} \text{ , Swansea, Wales, UK} \\ \textit{Research Officer} \text{ Data visualisation} \end{array} $	2015 - 2019
Healthcare Diagnostic Solutions , Cardiff, Wales UK Chief Programmer Time-series classification	2014 - 2015
Computation Institute, University of Chicago , Chicago , Illinois USA Post doctoral Researcher Machine learning for phenotype prediction	2012 - 2014
Dept Surgery, University of Chicago , Chicago , Illinois USA Post doctoral Researcher Agent based modelling	2010 - 2011
Dept Surgery, Northwestern University , Chicago, Illinois USA Post doctoral Researcher Agent based modelling	2009 - 2010
Dept Mathematics, QUT , Brisbane, Queensland Australia <i>Post doctoral Researcher</i> Cellular automata modelling of stem cells	2007 - 2009
CSIRO , Brisbane, Queensland Australia Post doctoral Researcher Cellular automata models of invasive plants	2005 - 2007
Environmental Protection Agency , Corvallis, Oregon USA $NRC\ Research\ fellow\ $ Cellular automata models of GM grass	2003 - 2005
Momentum Healthcare , Cardiff,UK Senior software engineer Drug discovery	1998 - 2001
MHA Productions , London UK Multimedia Programmer Computer games	1996 - 1998
UCPE, University of Sheffield , Sheffield UK Research Associate Cellular automata models of plant ecology	1991 - 1996
UKAEA , Harwell UK Research Associate Models of microbial ecology	1987 - 1991
Dept Microbiology, University of Surrey, Gilford, Surry UK Research Associate Models of microbial biotechnology	1984 - 1987

RECENT PUBLICATIONS

R colasanti, R Borgo, M Jones 2019 (in press). Emoji and Chernoff A Fine Balancing Act or are we Biased? IEEE Visualization Symposium, Pacific

E Williams, R Colasanti, K Wolffs, P Thomas, B Hope-Gill 2018. Classification of Tidal Breathing Airflow Profiles Using Statistical Hierarchal Cluster Analysis in Idiopathic Pulmonary Fibrosis. Medical Sciences.

Adam P Arkin et.al 2018. The United States department of energy systems biology knowledgebase. Nature biotechnology.

Christopher Henry; Claudia Lerma-Ortiz; Svetlana Gerdes; Ric Colasanti; Jeffrey Mullen; Aleksey Zhukov; Oceane Frelin; Jennifer Thiaville; Remi Zallot; Ghulam Hasnain; Thomas Niehaus; Neal Conrad; Andrew Hanson; Valerie de Crecy-Lagard 2016 in press. Systematic identification and analysis of frequent gene fusion events in metabolic pathways. Genome Biology.

K.L. Olukogbon1, P. Thomas, R.L. Colasanti, B. Hope-Gill and E. M. Williams 2016. Breathing patterns and breathlessness in Idiopathic Pulmonary Fibrosis: An observational study. Respirology. J.G. Jeffryes1, R. L.Colasanti, M. Elbadawi-Sidhu, T. Kind, T.D. Niehaus, L. J. Broadbelt, A.D. Arkin, A. P., Stevens, R. L., Cottingham, R. W., Maslov, S., Henry, C. S., etal (2016). The DOE Systems Biology Knowledgebase (KBase). bioRxiv, 096354.

Hanson, O. Fiehn, K. E. J. Tyo1, C.S. Henry 2015. MINEs: Open access databases of computationally predicted enzyme promiscuity products for untargeted metabolomics. Journal of Cheminformatics.

Ric Colasanti, Janaka N. Edirisinghe, Tahmineh Khazaei, Jos P. Faria, Sam Seaver, Fangfang Xia and Christopher Henry 2014. Tapping the Wealth of Microbial Data in High-Throughput Metabolic

Model Reconstruction.. Metabolic Flux Analysis, Methods in Molecular Biology Volume 1191, 2014, pp 19-45.

Williams, E. M., Powell, T., Eriksen, M., Neill, P., Colasanti, R. 2014. A pilot study quantifying the shape of tidal breathing waveforms using centroids in health and COPD. Journal of clinical monitoring and computing, 28(1), 67-74.

Ricardo L Colasanti, Janaka N Edirisinghe, Christopher S Henry 2013 A Naive Bayesian Classifier of Gram Stain Phenotypes From Genotype Functional Roles. In Proceedings of the AIChE

MOST CITED PUBLICATIONS

Wimpenny JWT, Colasanti RL. 1997 A unifying hypothesis for the structure of microbial biofilms based on cellular automaton models FEMS Microbiology Ecology, 1997, Vol.22, No.1, pp.1-16 441 Citations

Colasanti RL. Grime JP. 1993. Resource dynamics and vegetation processes: A deterministic model using two dimensional cellular automata. Functional Ecology 7: 169-177. 124 Citations

RL Colasanti, MAD Collins, JR Shaw, 2004, Method and system for interpreting and validating experimental data with automated reasoning, US Patent 6,813,615, 82 Citations

Colasanti RL. 1992. Discussions of the possible use of neural network algorithms in ecological modelling. Binary 3: 13-15. 53 Citations

Colasanti RL, Hunt R. 1997. Resource dynamics and plant growth: a self-assembling model for individuals, populations and communities. Functional Ecology 11:133-145. 40 Citations

Watrud, L.S, King, G., Londo, J.P, Colasanti, R.L., Smith, B.S, Waschmann, R.S, and Henry Lee H.E, 2011. Changes in constructed Brassica communities treated with glyphosate drift Ecological Applications 21:2, 525-538 359 citations 40 Citations

Colasanti RL, Hunt R. and Askew A.P. 2001 A self-assembling model of resource dynamics and plant growth incorporating plant functional types. Functional Ecology 15: 676-687. 34 Citations Colasanti RL. 1992. Cellular automata models of microbial colonies. Binary 24: 19-22. 30 Citations Colasanti RL, Hunt R, Watrud L. 2007 A simple cellular automaton model for high-level vegetation dynamics Ecological modelling 203, 363-374. 25 Citations

PATENTS

Patent Application, Serial No. 09/656,372 (Sept 6, 2000), USA - Method and system for interpreting and validating experimental data with automated reasoning. Case number 00.693. Inventors: Ricardo L Colasanti, Mark A D Collins, John R Shaw

Patent Application, Serial No. 09/655,677 (Sept 6, 2000), USA - Method and system for obtaining knowledge based recommendations. Case number 00.692. Inventors: Mark A D Collins, John R Shaw, Ricardo L Colasanti

Patent Application, Serial No. 09/656,400 (Sept 6, 2000), USA - Method and system for creating and using knowledge patterns. Case number 00694. Inventors: Mark A D Collins, Ricardo L Colasanti