

Julian Collado Umana

Ph.D. Candidate of Computer Science

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Work Experience

- Summer 2019 **Data Science Intern, Electronic Arts Redwood City**
- Summer 2018 **Data Analyst Intern, Blizzard Entertainment Irvine**
- Summer 2017 **Data Science Intern, Blackberry-Cylance Irvine**
- Summer 2016 **Software Engineer Intern, Canon Information and Imaging Solutions Irvine**
- 2013-2014 **Interim Professor in Physics, University of Costa Rica**

Education

- 2014–2020 **University of California Irvine, Ph.D.**
Computer Science
Thesis: "Machine Learning in High Energy Physics"
- 2013 **University of Costa Rica, B.Sc.**
Physics

Honors and Awards

- 2017-2019 Machine learning in the Physical Sciences (MAPS) Fellow
- 2016 Machine learning in the Physical Sciences (MAPS) Honorary member

Journal Publications

- 2016 **Jet flavor classification in high-energy physics with deep neural networks**
D Guest, J Collado, P Baldi, SC Hsu, G Urban, D Whiteson
Physical Review D 94 (11), 112002

Peer-reviewed Conference Publications

- 2019 **Sparse Image Generation with Decoupled Generative Models**
Y Lu, J Collado, K Bauer, D Whiteson, P Baldi
Machine Learning and the Physical Sciences at NeurIPS)
- 2019 **Convolutional neural networks for energy and vertex reconstruction in DUNE**
I Seong, L Hertel, J Collado, L Li, N Nayak, J Bian, P Baldi
Machine Learning and the Physical Sciences at NeurIPS)
- 2018 **Sherpa: Hyperparameter Optimization for Machine Learning Models**
L Hertel, J Collado, D Whiteson, P Baldi
Machine Learning Open Source Software (MLOSS at NeurIPS)
- 2015 **Deep learning, dark knowledge, and dark matter**
P Sadowski, J Collado, D Whiteson, P Baldi

Professional Service

Reviewer Journal: Neural Networks

Mentoring and Group Leadership

Member Women in Cybersecurity, University of California Irvine

Founder Machine Learning Reading Group, Physics Department, University of California Irvine

Mentor Alexis Romero, Physics Ph.D. Student University of California Irvine

Talks and Tutorials

2018 How to Apply to Graduate School, University of Costa Rica

2018 Neural Networks in Statistics, University of Costa Rica

2018 Introduction to Deep Learning, University of Costa Rica

2018 Data Science in Industry, University of Costa Rica

2018 Introduction to Neural Networks in Python, University of California Irvine

2017 Introduction to Neural Networks in Python, University of California Irvine

Technical Skills

Programming PYTHON, JAVA, SQL

Teaching Experience

2019 Teaching Assistant, Machine Learning, University of California Irvine

2016 Teaching Assistant, Critical Writing, University of California Irvine

2015 Teaching Assistant, Linear Algebra, University of California Irvine

2013 Instructor, General Physics Laboratory, University of Costa Rica

Languages

English Fluent

Spanish Fluent

French Basic