Sergio Pascual Díaz

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EDUCATION

University of Cambridge, Department of Engineering

Cambridge, UK

MPhil in Machine Learning, Speech, and Language Technology

Oct 2016 - Sep 2017

- Coursework: Probabilistic Machine Learning (distinction), Statistical Pattern Recognition (distinction), Computer Vision, Reinforcement Learning & Decision Making, and Speech Recognition & Synthesis.
- Projects & implementations: Kaggle competitions in Regression, Classification & Density Modeling, Variational Autoencoder, TrueSkill based probabilistic ranking, and Dialogue Systems.

University of Oxford, Mathematical Institute - New College

Oxford, UK

MMath in Mathematics

Oct 2012 – Jun 2016

- Outcome: 2nd Upper Class with 69/100 GPA.
- Main focus: Statistical & numerical methods for Theoretical Physics.
- Awards: New College Sports and Culture Award (May 2014), New College Scholar (Oct 2015).

Colegio Jesuitas Indautxu

BILBAO, SPAIN

Baccalaureate in Science and Technology

Sep 2010 – Jun 2012

- Outcome: Honours with 92/100 GPA and 12.5/14 in PAU.
- Awards: Bronze medal at Spanish Mathematical Olympiad (Mar 2012).

RESEARCH EXPERIENCE

University of Cambridge

CAMBRIDGE, UK

Research Student – Computational and Biological Learning Laboratory

Mar – Aug 2017

- Thesis project: "Pathologies of Deep Sparse Gaussian Process Regression" (%).
- Research areas: Deep Learning, Bayesian Optimization, and Bayesian Non-parametric models.
- Proposed and implemented a greedy initialisation scheme for approximate inference in Deep Gaussian Processes that resolved regression pathologies on highly non-stationary datasets.
- Supervisor: Dr. Richard Turner.

Basque Center for Applied Mathematics (BCAM)

BILBAO, SPAIN

Research Intern – Computational Mathematics Group

Jul – Sep 2014

- Mathematically proved the reliability of a mesh generation technique for Finite Element Methods to solve Partial Differential Equations, and implemented and tested this technique on 5 challenging settings.
- Conclusions drawn from these experiments contributed to a conference article (%).
- Supervisor: Prof. Sergey Korotov.

SKILLS

Computing Skills:

- Programming languages: MATLAB (3 years), Python (2 years), C++ (1 year) and R (1 year).
- Machine Learning Frameworks: Scikit-learn, TensorFlow, Theano, GPy, PyDial, and HTK tool-kit.
- Others: Git, GitHub, Unix, Bash, Google Cloud Computing, LATEX and Microsoft Office.

Languages: English (fluent), Spanish (native) and Basque (B2 level).

Interests & Activities

Volunteering:

- Slums Dunk NGO (Nairobi, Kenya) - Teacher & Basketball coach

Jun 2016

- FIBA Basketball World Cup (Spain) - International volunteers group leader

Aug 2014

- Alboan NGO (BILBAO, SPAIN) - Community service

Oct 2010 - Apr 2012

University Societies: Technology & Enterprise Club and Engineering Society at Cambridge; Invariant Society and Spanish Society (*treasurer*) at Oxford.

Sports: Basketball - Oxford & Cambridge university teams, Rowing - college boat, Skiing and Football.

Hobbies: Tech-blogging (*Vision-AI*), beer home-brewing and backpacking.