

# Lucia Castellanos

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 <http://lucia-castellanos.com/>

## Experience

### **Science and Engineering Manager**

Amazon

Apr 2020 - Present (3 years 5 months)

- + Hired and managed a team of 14 people (scientists and machine learning software engineers) responsible for the design, development, and maintenance of machine learning infrastructure that supports end-to-end recommendation systems in the Ads organization at Amazon
- + Translated the business needs into technical requirements
- + Coordinated the team to build a set of Machine Learning systems that support relevance and click-through-rate models for content retrieval and ranking in 10+ placements in Amazon search and product pages
- + Coordinated project execution and inter-team interactions (5+ teams)
- + Mentored team members on career growth, coordinated knowledge-sharing sessions, and established mechanisms to execute following Operational Excellence best practices

### **Senior Applied Research Scientist - Machine Learning**

Amazon

Aug 2018 - Apr 2020 (1 year 9 months)

- + Implementation of algorithms for sourcing and ranking ads in Amazon.com

### **Applied Research Scientist - Machine Learning**

Amazon Web Services (AWS)

Apr 2016 - Aug 2018 (2 years 5 months)

- + Capacity planning for EC2 Spot instances
- + Dynamic pricing for EC2 instances
- + Demand forecasting (for data centers inventory)

### **Software Development Engineer - Machine Learning**

Amazon

Sep 2013 - Apr 2016 (2 years 8 months)

- + Resource optimization in AWS EC2
- + Large scale machine learning for accelerating browsing experience in Silk browser

### **Bioinformatics Intern**

Illumina

Jun 2011 - Sep 2011 (4 months)

- + Proposed, implemented and evaluated statistical models for variant recalibration using internally (Illumina) generated features that describe SNPs.

+ Evaluated the impact of a base calling post-processing module in variant calling using software packages like Gatk, Samtools, and Casava.



### **Machine Learning Intern**

Institut National de Recherche en Informatique et en Automatique, France

May 2006 - Sep 2006 (5 months)

Researched variable selection in ensembles of neural networks in classification tasks.



### **Data Mining Analyst**

Banco Santander Serfin

Jan 2006 - May 2006 (5 months)

Applied clustering analysis on data of clients to understand their profiles, and target marketing strategies more accurately.



### **Data Mining Consultant**

Grupo Nacional Provincial GNP

Nov 2005 - Feb 2006 (4 months)

Identified and extracted relevant information from GNP clients' database to evaluate the viability and profitability of a potential new product.

## **Education**



### **Carnegie Mellon University**

PhD, Machine Learning

2006 - 2013

MS in Machine Learning (August 2010)

Advisor: Rob Kass ( <https://www.stat.cmu.edu/~kass/> )

+ Proposed models and efficient representations of grasping kinematics.

+ Developed statistical methods for decoding grasping from spike trains measured in the primary motor cortex of primates.



### **The University of Edinburgh**

MSc, Informatics

2004 - 2005

Specialization: Bioinformatics

Graduated with distinction.



### **Instituto Tecnológico Autónomo de México**

BSc, Applied Mathematics

1998 - 2004

## **Skills**

Machine Learning • Data Mining • Algorithms • Artificial Intelligence • Team Management • Software Development