

# FRANCESCO M. FERRARI

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## EMPLOYMENT

**Data Scientist at Microsoft Technology & Research (full-time), London, UK** March 2016 - September 2016

- Worked on customer profiling using LDA, users-to-vectors, etc.
- Worked on models to predict the demographic of users (age inference, gender inference, etc.)
- Worked on event-predictions models (predicting AMA winners, Oscars, etc.)
- Built a highly flexible pipeline to analyse and augment the current language data. It was made available across different teams in order to automate specific processes.

**Data Science Intern at Classy.org, San Diego, CA** Jun 2017 - September 2017

- Worked on supporters segmentation and on identifying influencers on social media
- Worked on gender inference and topic distribution for potential supporters
- Worked on open source APIs for Instagram

**Software Engineer at Swiftkey (full-time), London, UK** Aug 2015 – March 2016

- Worked in the Data Insights team on big data
- Used Apache Spark to process users' language models stored on cloud
- Worked on sentiment classifiers, topic modelling analysis, language patterns recognition, word2vec models and recurrent neural networks for emoji predictions.

**Software Engineer / Full stack developer at Cisco (part-time)** Sep 2014 – Jul 2015

- Worked on the integration of different Cisco products using APIs and as full-stack developer for demos and proofs of concept.
- Improved searchability of Cisco research papers by building a Solr server

**Software Engineering Intern at Cisco (full time), San Jose, CA** Aug 2013 – Jul 2014

- Learnt web development skills: Built 4 web apps for Cisco throughout the year, all subdomains of cisco.com: dev-innovate.cisco.com, techfundfinance.cisco.com, ciip.cisco.com, research.cisco.com, developed using Django.
- Improved business and strategy skills while working with the senior director of Strategy and Planning.
- Built first public platform using new Cisco cloud technology running on top of Openstack
- Exposed to high level projects (one of my apps was presented during one of the executive keynotes at Cisco Live SF 2014 conference; ~25k attendees)

## EDUCATION AND QUALIFICATIONS

**University of California, San Diego**

MSc in Computer Science and Artificial Intelligence

Sep 2016 - Present

- Focusing on AI/Machine Learning modules including robotics and graphical models.

**University College London**

BEng Electronic Engineering with Year in Industry  
2015

London, UK

Sep 2011 – Jun

- Current qualifications: First Class Honours (84% - Top of the year), including Electronic Circuit: 97%, Mathematics: 90%, Digital Circuit: 94%
- Modules: Supervised Learning, Reinforcement Learning, Kernel Methods, Objected-Oriented Programming, Linear Algebra, Optoelectronics, Digital Design, Electronic Circuits, Control Systems, Digital Signal Processing, Optoelectronics, etc.
- My thesis involved Machine Learning and Data Mining. It consists in pattern recognition of pedestrians using indoor positioning technologies.

**London School of Economics**

Intensive course in Business and Strategic Management

London, UK

Jul 2012 – Aug 2012

## PROGRAMMING SKILLS

**Python**, Advanced: main programming language used at Cisco and PlayCity (personal project)  
**Java**, Intermediate: Followed two modules at university.  
**C++**, Beginner: mostly worked with C++ when using ROS  
**R**, beginner: followed an internal course at Classy.org  
**MatLab**, Intermediate: Following a course on practical application of Supervised Learning using MatLab.  
**Web frameworks**: Django (Advanced) and Flask (Intermediate).  
**Databases**: PostgreSQL (Beginner)  
**Front End**: Javascript(Beginner), HTML5(Advanced), CSS3(Intermediate), Template Tags(Jinja)  
**API**: Experience with Facebook, Linkedin and Twitter APIs. Built also APIs in Python for PlayCity's mobile app.  
**Linux**: Experience in setting up servers on Linux VMs.  
**Apache Spark**, Intermediate: My job at Microsoft and Swiftkey involved Spark on a daily basis.  
**Others**: Solr (beginner), Scala (beginner - built a pipeline while working at Swiftkey using Scala)

## ACHIEVEMENTS AND AWARDS

**The IET Prize**, IET, London 2015

Awarded for best performance in both the MEng and BEng degree course in Electronic Engineering.

**Member of the Dean's List**, UCL, London 2015, for outstanding academic achievement

**The Rank Taylor Hobson Prize**, UCL, London 2015

Awarded the Rank Taylor Hobson award for the project 'Pattern Behaviour Recognition for Pedestrians' in the 3rd year of my undergraduate degree in Electronic Engineering at UCL.

**1<sup>st</sup> Prize Winner of Hack Palo Alto Competition**, Palo Alto, California, 2014

( <http://www.forbes.com/sites/sap/2014/06/01/civic-innovation-thrives-in-silicon-valley/> )

**1<sup>st</sup> Prize Winner in the Physics Olympiads Award**, Lodi Province, Italy, 2011

**Member of the Mensa Society**, 2008-2012

**Member of the Oklahoma Honour Society**, OK 2010, for outstanding academic achievements, 2010

**Montanaso Lombardo Scholarship, Italy**: Secured seven scholarships from the town council of Montanaso Lombardo, 2006-2011 and 2016

## POSITIONS OF RESPONSIBILITY

**CEO and Founder of PlayCity, Inc.** [www.playpaloalto.com](http://www.playpaloalto.com)

Feb 2014 – Jan 2015

- PlayCity is a social platform that aims to increase the level of civic engagement involving local businesses, charities and residents.
- Took care of customer relations with several stake holders (charities, city manager of Palo Alto, CIO of Palo Alto, law firm)
- Built the whole web app (back-end and most of the front-end) using Django
- Built APIs written in Python for the mobile app
- Improved management techniques organizing other team members using agile methods like Scrum

**Mentor, UCL**, 2012-2013

Mentored a group of 15 first-year students. Helped them with unclear topics encountered during lectures.

**Co-Founder and President of The Engineering Pipeline**, 2012

A social enterprise that promotes Electronic Engineering in UK high schools and develops engineering projects.

**School Representative**, 2010-2011

Successfully served as student voice between the school and the province of Lodi, Italy, by bringing the gap between student ideas and channelling them to final manifestation.

**Science Club President**, 2009 – 2010

Developed leadership skills by planning meetings and scientific trips to the science museum of Oklahoma City.

## OTHER SKILLS AND INTERESTS

**Languages:** Italian (native), English (fluent), Spanish (intermediate)