# ARTIDORO PAGNONI

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### **EDUCATION**

Cambridge, MA Harvard University Fall 2014 - May 2018

- S.M. Computer Science GPA: 3.875
- A.B. Physics with Advanced Standing, Secondary in Mathematics GPA: 3.653
- GRE: math 170/170 verbal 161/170 writing 5/6

### Rome, Italy Lycee Chateaubriand French High School Fall 1999 - June 2014

- French Baccalaureate, GPA: 20.4/20. Rank: top 5 in France, compliments by the French Minister of Education
- Finalist in the French Math Olympiads, May 2013

#### REASEARCH AND WORK EXPERIENCE

# Software Engineer Microsoft AI August 2018 - Present

- Contributed to development and open sourcing of ML.NET, ML library internally build by MSR for the past decade
- Primarily focused on improving model explainability features of the library, and building a new API
- Joined MSR project to explore the fine-tuning of classical ML models (e.g. decision trees) by converting them to neural networks and using backpropagation

#### **Undergraduate Researcher**

# **Harvard NLP Group**

Fall 2017 - Spring 2018

- Constructed and evaluated latent variable model for neural machine translation relying on conditional VAE
- Explored recent text generation method relying on editing prototype sentences to generate newspaper headlines
- Participated in small seminar with Prof. Rush on recent NLP techniques for text generation, reading and presenting papers

# Software Engineer, intern

# Microsoft

May - August 2017

• Reduced impact of load operations in Azure distributed database SQL Data Warehouse, through on demand construction of new cluster of compute nodes for bulk load operations, this also improved compression quality

### PRISE Research Fellow

# **Harvard - Cadence Design Systems**

June - August 2016

- Co-authored three patents on a new method to optimize and automate the design of the layout of Printed Circuit Boards
- Elaborated a new highly parallelizable representation of the problem and developed a heuristic algorithm based on that
- Reached and sometimes improved the performance of current designs

# Analyst, intern

# **Lonsin Capital Hedge Fund**

**May - June 2015** 

- · Assessed companies' distressed assets and debt, analyzed long term effects of bankruptcy and credit restructuring
- Received training on options (independently studied Options Swaps and Other Derivatives, Hull)
- · Autonomously started developing an algorithm to assess options' pricing offset with respect to their theoretical value

#### Marketing, intern

### Geely Auto, Chinese Owner of Volvo

July - August 2015

• Participated to the organization of a new sponsorship deal for the Chinese National Swimming Team, selected English name for new car models, and produced social responsibility reports

# TEACHING AND LEADERSHIP

# **Teaching Assistant**

### **Harvard Computer Science 1**

**Spring 2017** 

• Directed weekly sections for 20 students, held office hours, graded problem sets and advised groups on final projects

# Director of FIP, Alumni Chair Harvard Woodbridge International Society

**Spring 2015 - Fall 2016** 

- Director of FIP (Freshmen International Preorientation), a 5-day Harvard Orientation for 150 international students
- Coordinated a team of 40 leaders, selected among 120 applicants, for the organization of the program
- Initiated a SIG (Shared Interest Group) for international alumni, a club recognized by the Harvard Alumni Association

#### President

#### Harvard European Business Group

Fall 2014 - Spring 201

• Invited prominent European political figures and representatives of major businesses to give presentations; in particular Josep Borrell, President of the European Parliament and Alberto Festa, CEO of Bulgari

### **SPORTS**

### Varsity Team Fencing

Fall 2014 - Spring 2016

• Starter on Harvard Fencing Varsity Team, 2015 Ivy League Champions

### Italian National Team Modern Pentathlon

**Summer 2012** 

- Member of the Italian National Pentathlon Team leading it to first victory at the International Budapest Competition 2012
- Ten years of competitive activity, with last four years of solo training

#### SKILLS AND INTERESTS

- Languages: Italian, French native; German intermediate; Chinese beginner
- Proficient in Python, C/C++, C#, Java, Mathematica, OCaml and SQL