Constanza Fierro

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EDUCATION

UNIVERSITY OF COPENHAGEN
PhD in Natural Language Processing and Machine Learning
Jul 2021 - Jun 2024

Focusing on knowledge representations and reliability of language models.

UNIVERSITY OF CHILE
Computer Science Engineer (Engineering Diploma)
Completed Jul 2019

Cum. Grade: 6.5/7.0 (GPA 4)
Years of studies: 6

ECOLE CENTRALE MARSEILLE
Exchange
Jul 2015 - Jul 2016 | France
General Engineering

COURSEWORK

Computational Intelligence
Data Mining
Probabilistic Robotics
Probabilities and Statistics
Linear Algebra
Multivariate calculus
Discrete Mathematics
Algorithms and Data Structures
Theory of computation
Programming design methodologies
Databases
Programming Languages
Operating Systems

SKILLS

PROGRAMMING
Advanced:
Python • C++ • Java • Pytorch
Intermediate:
Tensorflow • SQL • Matlab • Bash
Familiar:
Assembly • R • CSS/HTML

LANGUAGE
Spanish: Native
English: Fluent
French: Excellent command

OTHER HOBBIES

Handball player
Occasional runner
Amateur photographer

EXPERIENCE

GOOGLE | Software Engineer (Youtube Video Classification)
Oct 2019 – May 2021 | Paris, France

- Part of the team developing Youtube classification platform for training, evaluating and governing classifiers.
- In charge of building and serving 3 different binary classification models for videos.
- Developed multiple evaluation analysis for our classifiers.
- Designed and implemented pipelines for automatic sampling, human labeling, training, and evaluation of classifiers.
- Developed weighted and importance random sampling.

20% Google Brain Summarization team

- Defined and presented the state of the art for the data-to-text task.
- Run experiments fine tuning a transformer model in 10 different data-to-text datasets.

FACEBOOK | Software Engineer Intern (IG Growth Ranking)
Jan 2019 – Mar 2019 | Menlo Park, California

- Added cached behaviour for server failures. Used A/B testing to experiment.
- Implemented counters and throttling for clients of the ranking server.
- Migrated features extraction to a general Facebook features store.
- Designed general framework for features extraction from different sources.

GOOGLE | Software Engineer Intern (Search Core Team)
Jan 2018 – Apr 2018 | Mountain View, California

- Worked in anomaly detection on time series using Bayesian DLM.
- Improved the signal by incorporating cycles of different lengths to the model.
- Improved memory usage on the signal calculation.
- Trained and compared Tensorflow models with/without the new signal.

RESEARCH

ENGINEERING THESIS | ICLR 2020 (AI4AH Workshop)
Predicting Unplanned Readmissions with Highly Unstructured Data

- Proposed and developed a deep learning model for predicting inpatient readmission.
- Used 10 years of data from a Chilean clinic that contained mainly free text.
- Obtained results comparable to the state of the art in the task.
- Presented the paper at the AI4AH workshop at ICLR2020 as oral (link).

UNDERGRAD RESEARCH | EMNLP 2017 (Argument Mining Workshop)
200K+ Crowdsourced Political Arguments for a New Chilean Constitution

- Compared manual text classification to linear and neural network models.
- In charge of the development of the deep neural network (Deep Averaging Network).

OTHER PROJECTS

Open Source Contributions

- Fixed and merged two bugs in the masked component of NumPy (link).

Volunteering

- Grace Hopper 2020 scholarship reviewer.
- ICLR 2020 volunteer: dry run the online platform and assist attendees.
- Venkat Panchapakesan Google 2019 scholarship reviewer.

AWARDS

2019	Honors	Graduated with the highest academic distinction
2013-2018	Honors	Dean's list
2017	Fellow	Latin-American AI Summer School (EVIC)
2015	11nd/450	Ascenci Dev Cup (France) Finalist
2012	2nd/90	High School Graduation position