CURRENT ADDRESS
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Alessandro Rennola

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EDUCATION

Undergraduate: Polytechnic University of Turin; Turin, Italy *Sep 2014 – July 2017*
BS Computer Engineering. **GPA:** 4.0 equivalent (110/110)

Graduate: University of Illinois at Chicago; Chicago, IL *Sep 2017- Present*
MS Computer Science. **GPA:** 4.0

Relevant Coursework: Software Engineering *(OOP Programming, Agile software development, Android Programming)*, **Neural Networks** *(Perceptron, Gradient Descent, LMS, Backpropagation, Associative Memory, Hopfield networks, SVN, PCA, Pattern Recognition, Classification, Prediction, Clustering)*, **Deep Learning** *(Convolutional NN, **GAN**, **LSTM**, **BiLSTM**)*, Databases *(**Databases**, **Data warehousing**, Database management system, **Data Mining**)*, Big Data *(**Hadoop MapReduce, Spark, Spark Machine Learning Framework, Spark Streaming Framework**)*, Information Retrieval *(**Text classification and mining**, sentiment analysis, index construction, scoring, weighting)*.

WORK EXPERIENCE

Research Assistant, Information retrieval & Deep Learning *Jan 2019 – Present*
University of Illinois at Chicago

- Using machine learning to extract accurate information from disaster related tweets. Develop scalable architectures and high performing frameworks to classify Informativeness in Disaster Related Tweets.
- Semi-Supervised approaches for Adversarial and Virtual Adversarial Training on BiLSTM-based text classification models.
- Significant improvement of Precision, Recall, Accuracy in comparison with their respective baseline using Machine Learning (SVM, NB) and Deep Learning (**CNN**, **BiLSTM**) models.

Teaching Assistant, Algorithms and Programming, Databases *Oct 2016 – June 2017*
Polytechnic University of Turin

- Database: SQL (Oracle, MySQL), Relational Algebra, fundamentals of HTML and PHP.
- Algorithms and Programming: Algorithms, Data Structures (Lists, Trees, FIFO, LIFO and priority queues, Hash tables, Graphs) and advanced Problem Solving, including Combinatorics in C.
- Assist 300 students of "Database", “Algorithms and Programming” courses during laboratory hours on weekly basis.

RESEARCH EXPERIENCE

Tweet Actionability Classification
Flagging ‘calls for help’ to aid first responders *Sep 2018 – Dec 2018*

- Two-person project. Our goal was to classify actionable information in tweets during disastrous events using an unsupervised approach.
- Our simple, but effective approach was able to rank tweets according to their actionability measure with a precision of 70% in the first 10 results. This is a good starting point, given that actionable information is considered as a classic ‘needle-in-a-haystack’ problem.
- Code: https://github.com/arenn0/TweetActionabilityClassification

ARM LandTiger V2.0 LPC1768 *Oct 2017 – Mar 2018*
Educational Library

- Two-person project that aims at exploring some functionalities and features of the ARM LandTiger development board: GLCD and the TouchPanel peripherals.
- These libraries are going to be used as a starting point for the laboratory classes of Advanced Computer Architectures at Politecnico di Torino. Coded in C and ARM Assembly. IDEs used: Eclipse and ARM Keil uVision.
- Code: https://github.com/arenn0/LandTiger

SKILLS

- **Python** (Fluent), **Java 9** (Fluent), **C** (Fluent), **TensorFlow**, **Tensorboard**, **SQL**, **Hadoop MapReduce**, **Spark**, MATLAB, PHP, HTML 5, CSS, JavaScript, ARM Assembly, 8086 Assembly, MIPS64
- **AWS: EC2, Git, Github**, Operative Systems & OS: Programming (UNIX, UNIX Kernel, Windows)
- Languages: Italian (Native), English (Fluent – IELTS: Reading 8.5, Listening 9, Writing 6, Speaking 7)
- Research, Leadership, Teamwork.
- Invited Member of the Golden Key Organization at UIC for students in the top 15% of their class and top performing graduate students