ALESSANDRO FUSCO

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EDUCATION

Bologna, Italy **University Of Bologna** **2017 – 2019 (Planned)**

- M.S.E. in Computer Engineering with a focus on Artificial Intelligence and Distributed Systems

Bologna, Italy **University Of Bologna** **2014 - 2017**

- B.S.E in Computer Engineering. Weighted Average 28.5/30. Converted GPA: 3.8/4
- Final Grade: 110/110 cum laude.
- Thesis Title: "*Use of Deep Convolutional Neural Networks for the Improvement of Uncertainty Measures for Stereo-Vision Algorithms*". This project contributed to the publication of an ECCV 2018 paper. http://vision.deis.unibo.it/~smatt/Papers/ECCV2018/eccv-2018-confidence.pdf
- Abroad: Semester in Spain with a weighted average of 29/30 with coursework in Spanish.

EXPERIENCE

Software Engineer **Northside Snowscoot, Bologna, Italy** **2018**

- Developed a geographically distributed IoT monitoring and surveillance system.
- Provisioned the central Docker Swarm cluster, comprehensive of a monitoring solution built on Prometheus and Grafana.
- The remote deployments of software updates are managed continuously thanks to Jenkins.
- Images are uploaded from the remote locations to an Amazon S3 instance for future analysis.

Freelance Web Developer **Bologna, Italy** **2017-2018**

- Worked in collaboration of designer Marco Maldarella to develop tailor-made graphical web experiences.
- Developed custom PHP plugins to a Wordpress-based projects.

External Brand Consultant **Fondazione Golinelli, Bologna, Italy** **2016**

- Participated to the Icaro Project, an "Entrepreneurship Gym"
- Passed a selection of 33 students out of ~200.
- Studied and applied the Stanford-created "design-thinking" methodology to real-world business problems.
- Worked on the redefinition of a communication strategy to improve the spread of the brand identity for Theras Group, a successful Italian startup in the medical field.

FullStack Developer **CenaRandom, Bologna, Italy** **2015-2016**

- Co-founded a social eating startup as a result of a Google-organized Startup Weekend Event.
- Successfully defined the business model and customer validation.
- Developed the MVP based on RESTful APIs, based on a Node.js + Express.js + MongoDB stack.

System Administrator **ArtBit, Bologna, Italy** **2012-2013**

- Configuration and management of local network for a small (5 people) business.
- Setup and managed of a LAMP based web server, DNS and email server.

Web Developer **Liceo Scientifico A. Righi, Bologna** **2009-2012**

- Developed custom Joomla! PHP plugins and redesigned the entire frontend for my high school's website.
- Worked in a team of 5 students under the supervision of the school's IT department.

(Some) PERSONAL PROJECTS

- **Recap** – A vision API that extracts data from receipts, built in C++ using OpenCV and tesseract-ocr. Currently working on improving the detection accuracy, while coordinating with two colleagues to create a mobile frontend for expense tracking.
- **OpenAT** – Currently collaborating on the development of an open-source library for algorithmic trading. It currently supports basic transactions and monitoring of cryptocurrencies on multiple markets, and it aims to build a complete platform for financial strategy design. C++ unit-tested with gtest, with a focus on performance.
- **Radio copyright infringement monitor**. A program that monitors a periodic web radio transmission and sends a notification when a key-word from a given list is identified. Built on a Raspberry Pi using cronjobs and a speech recognition API. Bash + Java.
- **Advanced Windows File Manager** - Project for a Software Engineering university exam. Application that allows to schedule and execute complex filesystem searches and operations. C#

SUMMARY

I just graduated with merits from the University of Bologna and I am currently pursuing my studies in Computer Engineering. Currently, my two main interests are distributed & highly-available systems, and machine learning applied to computer vision.

Through the years, I developed interest for many other technological fields such as algorithms, cryptography and Linux kernel development, subjects that I explored by pursuing coding challenges, personal projects, and online courses.

I am involved in the local startup scene and I have been working on many side projects, which taught me (aside from technical and development skills) the dynamics of team working, project management and entrepreneurship.

SKILLS, LANGUAGES AND TECHNOLOGIES

Programming Languages	Proficient: C, Go, Python, Bash; Intermediate: C++14, Java, C#, JavaScript (node.js); Basic: MATLAB
Containerization Tools	Docker, Kubernetes
Frameworks	Tensorflow (python), OpenCV (python and C++), .NET 4 (C#)
Cloud	AWS EC2, S3, Lambda – Basic Experience with GCP Compute Engine
Database Skills	MySQL, PostgreSQL, IBM DB2, MongoDB.
Platforms	GNU Linux (Arch, CentOS 7), OS X, Microsoft Windows
Spoken Languages	English (Proficient, IELTS Score: 7.5), Italian (Native), Spanish (Intermediate)

ONLINE COURSES

- Udacity ud615 (2018): Scalable Microservices with Kubernetes
- Stanford cs231n (2017): Convolutional neural networks for image recognition
- Stanford cs229 (2015): Introduction to ML, data mining, and statistical pattern recognition.
- Princeton Algorithms, pt II (2014): graph-processing algorithms and string processing algorithms.
- Princeton Algorithms, pt I (2013): fundamental data types and algorithms, with emphasis on applications and scientific performance analysis of Java implementations.
- Harvard cs50x (2012): Introduction to computer science with coursework taught in C.