# Gabriele Angeletti

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## Experience

### Senior Software Engineer, Vital

Feb 2022 - Present

- Played a key role as the first full-time engineer outside of leadership. Collaborated closely with founders to establish engineering practices and contribute to the foundational development of the core infrastructure.
- Led efforts that successfully scaled the company's user base from 700 to over 1M, handling over 15B individual data points.

### Senior Software Engineer (part-time), Larki

Dec 2020 – Feb 2022

- Design and develop a system to automatically align Lidar point clouds from a variety of sensors.
- Research on 3D object detection/semantic segmentation approaches to extract information from point clouds.

### Software Engineer, Lyft Level 5

Oct 2018 - Jan 2020

- Led the project to develop a distributed data pipeline, efficiently running large-scale Structure From Motion (SfM) on hundreds of millions of images.
- Implemented an innovative algorithm for automatic detection and 3D placement of traffic lights in imagery data, increasing the accuracy of point cloud generation.
- Designed and implemented dashboards to consistently monitor the quality of SfM point clouds, reducing errors and increasing the reliability of data analysis.
- Developed an internal web application capable of visualizing driving patterns in real-time at scale.

### Research Engineer, Blue Vision Labs

Jan 2018 - Oct 2018

- Design of a data pipeline to automate the testing and evaluation of 3D mapping and localization algorithms.
- Work on the cloud infrastructure to run distributed 3D mapping at scale.
- Research: test the use of deep learning at different stages of the mapping pipeline to improve quality.

# Research Engineer intern, Blue Vision Labs

Aug 2017 - Dec 2017

- Research: replacing SIFT with deep learning to improve 2D feature detection.
- Design and build a data lake with AWS Redshift to store imagery metadata.
- Implementation of algorithms to evaluate the 3D mapping system.

Freelancer,

2014 - 2017

Part-time work on different projects during university as a full-stack web developer.

Student, InnovAction Lab

Spring 2013

Entrepreneurship course on how to create a startup and pitch ideas to investors.

#### Education

Sapienza University of Rome,

2015 - 2017

M.Sc. in Engineering in Artificial Intelligence and Robotics, (English Degree)

Final grade 110/110

Thesis: Adaptive Deep Learning through Visual Domain Localization <sup>1</sup>

Sapienza University of Rome,

2011 - 2014

B.Sc. in Engineering in Computer Science and Automation, (Italian Degree)

Final grade 106/110

Thesis: Statistical analysis of mobile apps reviews to improve users' QoE

### **Technologies**

## • Programming languages

- Python: 6 years of experience managing large codebases in dynamic, highpressure settings.
- Go: A year of experience developing diverse microservices.

#### • Cloud

- GCP: extensive experience mainly on BigTable, BigQuery, CloudRun, Cloud-Functions, CloudStorage, and IAM.
- AWS: extensive experience with key services including Redshift, S3, Lambda, EC2, ECS, and Batch.

### • Data Pipelines and Databases

- Extensive experience with PostgreSQL, BigTable, and Redshift database systems.
- Proficient in Spark, Airflow, and Luigi for data pipeline construction.

#### • Front-end development

Basic knowledge of React and TypeScript.

# • DevOps

- Skilled in Docker, Terraform, Pulumi, BuildKite, and GitHub Actions.

#### **Projects**

Deep Learning TensorFlow <sup>2</sup>: Ready to use implementations of various Deep Learning algorithms using TensorFlow.

#### **Publications**

G. Angeletti, T. Tommasi, B. Caputo. "Adaptive Deep Learning through Visual Domain Localization". In: *IEEE International Conference on Robotics and Automation (ICRA)*(2018) <sup>3</sup>

#### Languages

Italian - native speaker.

English - full proficiency with near-native fluency.

French - fluent in speaking and reading, with developing writing abilities.

<sup>&</sup>lt;sup>1</sup>https://github.com/blackecho/master-thesis

<sup>&</sup>lt;sup>2</sup>https://github.com/blackecho/Deep-Learning-TensorFlow

<sup>&</sup>lt;sup>3</sup>https://arxiv.org/abs/1802.08833

Honors	Ranked 13 / 2189 among Python github users in Italy by $^4$	2018
	Winner of Accenture Digital Hackathon Rome	2016
	NASA International SpaceApps Challenge Local winner (Rome) & Global winner for category Galactic Impact Project: CROPP—Cultures Risks Observation and Prevention Platform <sup>5</sup>	2015
Activities & Hobbies	Surfing, scuba diving, climbing, running, hiking.	

<sup>4</sup>http://git-awards.com/ 5https://2015.spaceappschallenge.org/award/