Alessandro **Puccetti**

PRINCIPAL DATA PLATFORM ENGINEER

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"Choose a job you love and you will never work a day in your life."

Summary

Currently Principal Data Platform Engineer at Huq Industries. My main focus is to ensure reliability 24/7 of our data pipelines and customer facing products. I lead the data scraping effort to collect data at scale for our enrichment data pipelines.

I have extensive experience with many Google Cloud Platform products such as: BigQuery, Cloud Composer, Cloud Workflows, Cloud Storage, and IAM. Also, I have vast experience in building products using dbt, Terraform, Google Datastudio, and Docker.

Skills

Cloud	Google Cloud Platform, AWS, Terraform Cloud, GitHub Actions, Scrapy Cloud
Tools	BigQuery, Cloud Workflows, Cloud Composer, dbt, Apache Airflow, Scrapy, Docker
Programming	SQL, Python, Terraform, LaTeX, C
Languages	Italian (mother tongue), English (close to native)

Work Experience

Huq Industries — *London, United Kingdom*

PRINCIPAL DATA PLATFORM ENGINEER — *Jul. 2017 - Now*

- Lead the company data infrastructure design and development.
- Bring to production client data products.
- Infrastructure cost optimization.
- Design and development of data governance.
- Design and development of our data scraping system.
- Liaison clients to best access and use our products.

Kinvolk — *Berlin, Germany*

SOFTWARE ENGINEER — *Apr. 2016 - Jun. 2017*

- Contributed and participated in discussion to improve open source project such as: rkt, systemd, and Weave Scope.
- Worked on Weave Scope monitor plugins using eBPF for fast and lightweight in kernel network measurements.
- Got experience with Kubernetes and OpenShift.

SecLab - University of California, Santa Barbara — *Santa Barbara, United States*

RESEARCH ASSOCIATE — *Mar. 2015 - Aug. 2015*

- Worked on a project to identify privacy information leakages from network traffic in mobile phone application.
- Co-authored the paper "Obfuscation-Resilient Privacy Leak Detection for Mobile Apps Through Differential Analysis" presented at NDSS2017
- Contributed to organize and run the iCTF, DARPA challenge on finding vulnerabilities on Android mobile application, and DEFCON CTF.
- Participated to the DARPA Challenge discovering vulnerabilities and/or privacy leakage in mobile applications.

Presentation

GDG Cloud London Meetup — *London, United Kingdom*

"GOOGLE BIGQUERY A DATA JOURNEY" — *Aug. 2019*

- Introduce Google BigQuery using Huq Industries experience with geospatial big data.
- Outline why we chose BigQuery over other solutions.
- Hands-on example using BigQuery UI.

GDG Cloud London Meetup — *London, United Kingdom*

"CLOUD COMPOSER - THE SHORT-LIVING TASKS ANNIHILATION" — *Aug. 2019*

- Introduce Apache Airflow and Google Cloud Composer.
- Introduce the issue of having may short-living tasks.
- Show a solution to mitigate the problem.

LinuxCon Europe — *Berlin, Germany*

"BUILDING CONTAINER IMAGES" — *Oct. 2016*

- A hands-on presentation on how to build container images with different tools.

systemd.conf *Berlin, Germany*

"Tiptoeing into the systemd dev community" *Sep. 2016*

- Firsthand experience entering the systemd development community and introduction to newest systemd V231 features.

Education

University of Pisa *Pisa, Italy*

M.Eng. in Computer Science and Engineering *2011 - 2015*

- Thesis: Design and development of an active probing technique to validate the "source IP address" header field in a live stream of IP packets.
- Visiting grad student at CAIDA (Center for Applied Internet Data Analysis) at the University of California, San Diego.

University of Pisa *Pisa, Italy*

B.Eng. in Computer Science and Engineering *2006 - 2011*

- Thesis: Performance evaluation of an algorithm for dynamic management wireless channels in ad-hoc networks.

Extracurricular Activity

Python 101 for high school *La Spezia, Italy*

Lecturer *Mar. 2016 - Apr. 2016*

- Taught fundamental programming using Python to students at the High School Antonio Pacinotti, La Spezia, Italy.

CAIDA, Center for Applied Internet Data Analysis *San Diego, California, United States*

Visiting Grad Student *Mar. 2015 - Aug. 2015*

- Worked on my Master Thesis on internet measurements and IP address validation as part of the "IODA – Detection and Analysis of large-scale Internet infrastructure Outages", project funded by NSF.

Publications

Obfuscation-Resilient Privacy Leak Detection for Mobile Apps Through Differential Analysis *NDSS Symposium 2017*

Co-Author *March. 2017*

- Published at NDSS Symposium 2017.
- Publication link.