

SARA VAGNARELLI

Software Engineer

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📄 Work authorization: Australian

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Citizenship, EU Citizenship, US Working Visa

EXPERIENCE

Software Development Engineer II

Amazon

📅 April 2021 - Present 📍 New York, NY, USA

Working on multi-teamed emergent project targeted to mitigate COVID-19 impact for grocery shopping customers

Senior Software Engineer

Deckard Technologies

📅 Aug 2018 - Jan 2021 📍 Sydney, Australia

Deckard designs and develops analytical reporting systems using modern deep data mining, machine learning and predictive analytical algorithms to ensure that local governments have insights to return equity of obligations back to the community and sustain healthy revenue to support smart city growth

[linkedin.com/company/deckard-technologies/](https://www.linkedin.com/company/deckard-technologies/)

- Built CI/CD and ETL pipelines (AWS CloudFormation). Ensured reliability and consistency for a large number of data feeds.
- Developed a full-stack website - mainly the back-end to create a unified view of output of the data analytic processes and enable us, data analysts, to quickly evaluate results and prove our algorithms.
- Contributed to React Redux Datatable library.
github.com/sean-ww/react-redux-datable/graphs/contributors.
- Created dashboards and alerts through CloudFormation scripts to analyse log stream (Datadog).
- Techstack: Python, Postgres, Rest-ful APIs, AWS-Cognito for user authentication, AWS API Gateway, Flask, React, Wireframe, LucidChart, AWS - Python (TDD), Docker, boto3, CloudFormation, Jinja2, CloudWatch, CodePipeline, CodeBuild, Batch, S3, Glue, PySpark, Athena, EC2, Selenium.

Software Engineer

Qualcomm

📅 Nov 2016 - May 2018 📍 Sydney, Australia

Qualcomm creates semiconductors, software, and services related to wireless technology. It owns patents critical to the 5G, 4G, CDMA2000, TD-SCDMA and WCDMA mobile communications standards.

- Designed and developed the DIRB System (Device Identification Registration and Blocking System, github.com/dirbs)
- Developed performant, efficient Python code, applying a test-driven methodology to guarantee the correctness of the code after modifications.
- Profiling and debugging of performance related problems both in Python code and in SQL database code.
- Development of REST-ful APIs to access information and allow data exchange between multiple components of larger systems.
- Automated regression test suite which exercised 95%+ of the codebase using PyTest and unittest.
- Jenkins and Docker for CI and Revision Control.

SUMMARY

I have Bachelor's and Master's Degree in Computer Science and Engineering and 7+ years of working experience as Software Engineer. I enjoy developing and experimenting with new technology but I prefer to be technology-agnostic and find the best solution to the problem. I am looking for a challenging role that drives change and provides opportunities for career development.

EDUCATION

M.S. in Computer Engineering

Roma Tre University, Italy

📅 Oct 2012 - May 2015

B.S. in Computer Engineering

Roma Tre University, Italy

📅 Oct 2009 - May 2012

Deep Learning Nanodegree

Udacity

📅 Jan 2018 - Present

Full Stack Web Developer

Nanodegree

Udacity

📅 May 2016 - Sept 2016

PROJECT EXPERIENCE

Dog-Breed Classifier

github.com/saravgn/dogbreedclassifier

Designed and trained a CNN to identify dog breeds. Applied Transfer Learning to improve the model. Keras, NumPy, VGG-16, ResNet-50, Scikit-learn

Sentiment Classification

github.com/saravgn/sentimentclassifier

Predict sentiment from movie reviews. NumPy, Scikit-Learn

Predicting Bike Sharing Data

github.com/saravgn/bikesharingpred

Built and trained a Neural Network from scratch to predict the number of bike-share users on a given day. NumPy

EXPERIENCE

Consultant / Software Engineer

Accenture

Sep 2015 - Apr 2016

Rome, Italy

Ministry of Economy and Finance - Indoor Navigation System

- Joined software development team working in Java and SQL for a variety of clients. My role was primarily optimising in-house process including coordinating testing activities and automating processes execution

Research Fellow

New York University

Nov 2014 - May 2015

New York, NY, USA

Conducted a joint research project with Full Professor Chee Yap on autonomous navigation and mapping in GPS-denied environments

- Designed and developed an algorithm for drones quadcopter on using the onboard monocular camera to automatically build a reliable map of the area in which the drone is flying. **VISUAL SLAM**.
- Designed and developed image processing APIs in C/C++ for objects recognition and used **OpenCV** (Open Source Computer Vision Library)

Software Engineering Intern

Roma Tre University

Dec 2011 - May 2012

Rome, Italy

Designed and implemented software for the geolocation of radar maps in order to individuate the composition of the underground using Android platform



CERTS AND AWARDS

- SheHacks-Sydney 2019:** Awarded for Best DataScience App [linkedin.com/saravagnarelli-shehacks-sydney-2019-hackathon](https://www.linkedin.com/saravagnarelli-shehacks-sydney-2019-hackathon)
- CLOUDERA, Data Analyst Fundamentals** of data ETL (extract, transform, load), ingestion, and processing with **Hadoop** tools and how **Pig**, **Hive**, and **Impala** improve productivity for typical analysis tasks.
- C++ programming course**
- Academic Language Certificates**
English: TOEFL-IELTS-PTE-BULATS-FIRST-KET-PET.
Spanish: DELE Cervantes, Camino Barcelona

LANGUAGES/HOBBIES

- 3D printing **ED-209**
- Hacking Arduino 4-wheel Robot
- Travelling

English, Italian
Spanish



Team: Volleyball, Dance, Karate
Instruments: Piano and Flute