

SARA VAGNARELLI

Senior Software Engineer

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🐙 github.com/saravgn

🛂 Work authorization: US Green Card, EU Citizenship, Australian Citizenship

EXPERIENCE

Senior Software Development Engineer

Amazon

📅 April 2021 - Present

📍 New York, NY, USA

- Led large-scale, high-impact projects, including integrating promotional features with the Display Ads platform and improving Sponsored Products for Amazon Fresh and Whole Foods Market. Currently leading a system redesign with 15+ partner teams to optimize ad-serving infrastructure, focusing on scalability and performance.
- Emphasize software quality and efficiency, authoring over 30 critical technical documents, including architecture overviews and SOPs, that drive operational excellence and streamline team processes.

Senior Software Engineer

Deckard Technologies

📅 Aug 2018 - Jan 2021

📍 Sydney, Australia

- Developed analytical reporting systems to enhance local government operations and smart city growth. Spearheaded backend development and engineered CI/CD and ETL pipelines using Python, AWS, React, PySpark, and Docker, enhancing data processing efficiency by 30% and reducing system downtime by 20%.

Software Engineer

Qualcomm

📅 Nov 2016 - May 2018

📍 Sydney, Australia

- Designed the DIRB System, improving counterfeit device identification and registration by 60%, enhancing compliance and security. Optimized Python and SQL code, boosting data processing efficiency by 50%. Created RESTful APIs, improving data exchange and integration efficiency by 40%.

Software Engineer

Accenture

📅 Sep 2015 - Apr 2016

📍 Rome, Italy

- 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 on autonomous navigation and mapping in GPS-denied environments with Full Professor Chee Yap. Focused on the development of advanced algorithms for drone quadcopters, enabling real-time mapping using a monocular camera through VISUAL SLAM techniques.
- Designed and developed image processing APIs in C/C++, enhancing object recognition capabilities using the OpenCV library.

SUMMARY

I hold Bachelor's and Master's degrees in Computer Science and Engineering, with 9+ years of professional experience as a Software Engineer. I am passionate about exploring new technologies, yet I remain technology-agnostic to ensure the selection of the most effective solutions. I am seeking a challenging role that fosters change and offers significant opportunities for career advancement.

EDUCATION

M.S. in Computer Science and Engineering

Roma Tre University, Italy

📅 Oct 2012 - May 2015

B.S. in Computer Science and Engineering

Roma Tre University, Italy

📅 Oct 2009 - May 2012

Deep Learning Nanodegree

Udacity

📅 Jan 2018 - Present

Full Stack Web Dev 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

Software Engineering Intern

Roma Tre University

Dec 2011 - May 2012

Rome, Italy

- Developed Android-based software for geolocating radar maps, aimed at accurately identifying underground compositions through real-time data processing.
- Integrated advanced geospatial analysis techniques with Android development tools to enable precise mapping and analysis of subsurface materials.



CERTS AND AWARDS

- Rapid Application Development with Large Language Models (LLMs) at NVIDIA AI Summit DC 2024. [Link to cert](#)
- SheHacks-Sydney 2019: Awarded for Best DataScience App [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

- Gen AI playground on huggingface.co
- 3D printing ED-209
- Hacking Arduino 4-wheel Robot
- Travelling

English, Italian
Spanish



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