ALESSANDRO DE MITRI - Software Engineer

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TECHNICAL SKILLS

Coding: Javascript, Node.js, Express, Sequelize, React, Redux, Python, MATLAB, SQL, PostgreSQL, Git, GitHub, HTML5, CSS3, DOM, Express, Jasmine, Mocha, Chai, RESTful APIs

Software: Tableau, Microsoft Office Suite, gprMax, Reflexw, AutoCAD, ProMax, Cyclone, Cloud Compare

TECHNICAL PROJECTS

Urban-safari | Web Developer | *June-July 2022* | https://github.com/FSA2204-ATeam/urban-safari
Sentiment analysis based application that recommends nearby events and people you can go with.

- Leveraged Javascript's common libraries and frameworks like React, Redux, Material UI, HTML, and CSS to suggest events using third party APIs, deployed on Heroku platform.
- Used Node.js, Express, and Sequelize on the back-end side in order to store users' favorites events.
- Implemented Google Maps, in order to show events on the map, using a sentiment analysis algorithm.

YouChef | Web Developer | *June 2022* | https://github.com/Alessandro-DM/YouChef
An end-to-end web application that lets people hire chefs for a private event or as a delivery service.

- Used HTML, CSS, and Javascript's libraries like React.js, Redux, and MaterialUI for the frontend side to create an interactive interface where clients can find the right chef based on their preferences (e.g. budget, location, type of diet).
- Leveraging frameworks and modules like Node.js, Express, and Sequelize for the backend side; deployed on Heroku platform.

TECHNICAL EXPERIENCE

Artisté | Data Scientist/Python Developer | *Apr 2021-Mar 2022*
An application where artists can showcase, and sell their art pieces to collectors and art enthusiasts.

- Architected and developed batch recommendation profiles based on preferences (art type, most popular material, the average price of a piece of art, and color labels) leveraging NumPy, pandas, Matplotlib, Pyrebase.
- Created OpenCV models to identify art wall colors and improve Augmented Reality experiences.
- Established a recommendation service that shows suggested artwork to improve user experience, leveraging color labeling.
- Built out geofencing to provide venue suggestions for art enthusiasts given their device's radius, leveraging GeoPy.

Master Thesis | Student | *Sept 2019-Jul 2020*
Techniques and Methodologies for Buried Objects Detection Implementing an "Air-Coupled GPR"

- Conducted measurements with an experimental Ground Penetrating Radar (GPR) set up in soil to detect buried objects.
- Processed data with Matlab and implemented different algorithms: SAR (more specifically Delay-and-Sum), Conjugate Gradient, and Tikhonov Regularization. Also, leveraged Python to improve the resolution of the images, resulting in the detection of objects with a resolution of 7-8 cm.

ARTICLE / PUBLICATION

Portable and Easily Deployable Air-Launched GPR Scanner | Co-Author | Sept 2019-May 2020
Proposed a portable measurement setup to be implemented on a drone, to detect Improvised Explosive Devices (IEDs) and anti-personnel landmines (https://www.mdpi.com/735880).

EDUCATION

Fullstack Academy Web Development Bootcamp (Full-time)   (Remote) New York, United States
Software Engineering Certificate, Full Stack Javascript Web Development Immersive   *Jul 2022*

IBM Machine Learning Specializations   Austin TX, United States
Acquired hands-on experience with Machine Learning and Artificial Intelligence in a business setting   *May 2021*

DataCamp Certifications   Austin TX, United States
Obtained certifications for Python applications in a business and finance setting   *Apr 2021*

University of Pisa   Pisa, Italy
M.S. in Applied and Exploration Geophysics
   - Related coursework: Probability, Coding, Fundamentals of Geology, Digital Signal Processing
B.S. in Civil and Environmental Engineering
   - Related coursework: Statistics, Linear Algebra, Fundamentals of Energetics, Electrical Physics, Economics, Renewable Energies