ALEXANDROS “ALÉ” PHILIPPOS POUROULLIS

Software development enthusiast

alexpouroullis123@gmail.com +27 71 540 8132 alexandros-pouroullis-a105051b6
AlePouroullis alepouroullis.com

WORK

Software engineer

Loop

09/2022-Present

Contractual

- Startup aiming to digitalize the minibus taxi industry in South Africa
- Oversaw and developed all aspects of the software ecosystem during the initial stages of the project, including the server, database, pilots, bookings application, admin portal, affiliates portal and WhatsApp chatbot.
- Spoke with stakeholders, including venture builders, investors, taxi drivers and customers to understand their needs and requirements.
- Supervised two software interns.

Software developer

Elevat3d

07/2022-Present

Part-time

- SaaS platform that provides a suite of services for mines to analyze surface blasts and improve their blasting operations using machine learning and other techniques.
- Responsible primarily for the user interface built in React with Typescript, which involves using a graphics rendering engine in the browser, as well as building the backend API using Python and FastAPI.

EDUCATION

Tertiary

University of Cape Town

BSc Computer Science and Applied Statistics

2022-2024

Secondary School

Selborne College

2019-2021

COURSES

Mathematics for Machine Learning Specialization

Imperial College London

- Linear Algebra
- Multivariable Calculus

SKILLS

Scientific computing

Python pandas NumPy Librosa Matplotlib scikit-learn TensorFlow

Frontend

Javascript Typescript HTML CSS Sass React Redux Next.js

PROJECTS

Machine learning pipeline for type Ia supernova classification

Google Summer of Code evaluative task

- Evaluative task for a Google Summer of Code open-source project hosted by the Johns Hopkins University Applied Physics Laboratory.
- Created an end-to-end pipeline that estimated 5 different parameters using 5 individual models and aggregated the results

Speech emotion recognition

Loop Q Prize challenge A

- Used librosa to extract spectrograms, mel-spectrograms, mel-frequency cepstral coefficients and global average features
- Used a variety of data augmentations methods including SpecAugment
- Wrote a paper on the task

Student marketplace platform

In progress

- Developing a marketplace platform geared directly towards students, localized to university campuses, where students can sell, exchange, or request items
- Creating a RESTful API in Java with Spring, deployed on AWS Elastic Beanstalk, using a MySQL database hosted on an AWS RDS instance, and S3 for storage
- Frontend being built in Next.js, using Typescript
- Using Firebase for user authentication
- Set up a CICD pipeline using AWS CodePipeline

SKILLS CONTINUED

Backend

AWS | GCP | Firebase | Express.js | RESTful APIs | SQL | Relational DBs | NoSQL DBs