Francisco Tobar

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Coding

C/C++ • Python • Ruby • R • Bash • SQL • JavaScript • PHP • HTML5

Libraries/Frameworks

TensorFlow • PyTorch • Scikit-learn • Pandas • Ruby on Rails • Django

IT Operations

GNU/Linux • Apache •Nginx • PostgreSQL• MariaDB

RELEVANT EXPERIENCE

Dlogistic, Valparaíso, Chile - *Freelance Software Development*

Mar 2018 - Jun 2018
- Developed and deployed a RoR web application for the assignment of packages to a delivery vehicle fleet using smartphones as barcode scanners.
- Reduced the daily package assignment process time from 1-2 hrs to under 30 min.

U-Planner, Valparaíso, Chile - *Data Science Internship*

Jan 2017 - Mar 2017
- Developed a machine learning algorithm using Python with scikit-learn for course enrollment prediction in educational institutions. Provided a competitive and quicker option to the previous forecast algorithm.

GeoInnova, Santiago, Chile - *Data Science Internship*

Jan 2016 - Mar 2016
- Implemented a quick K-neighbours algorithm for high dimensional data using C++.
- Designed and implemented an efficient pipeline between Cuda DLLs and Electron.js Framework.

RESEARCH

Multi-OctConv: Reducing Memory Requirements in Image Generative Adversarial Networks - *Francisco Tobar,* Claudio Torres, 2020 39th International Conference of the Chilean Computer Science Society (SCCC)

Mar 2018 - Present
- Developed a modified convolutional layer in PyTorch that replaced the traditional convolutions in generative adversarial networks (GANs), reducing the memory usage up to 40% without affecting the quality of the generated image.

EDUCATION

Mar 2017 - Present   **Msc. in Computer Science Engineering**
Specialization: Scientific Computing and Computational Intelligence
Universidad Técnica Federico Santa María, Valparaíso, Chile

Mar 2013 - Aug 2019 **Bsc. in Computer Science Engineering**
Universidad Técnica Federico Santa María, Valparaíso, Chile