CAMILO ESCOBAR-VELÁSQUEZ

PhD Student and Ultimate Frisbee Player

Bogotá, Colombia @ ca.escobar2434@uniandes.edu.co caev03.github.io @caev03 caev03

EDUCATION

PhD in Systems and Computing Engineering

The Software Design Lab (Universidad de los Andes)

Jan. 2019 – Present Bogota,Colombia

Advisor: Mario Linares-Vásquez mlinaresv at uniandes

M.Sc. in Software Engineering

The Software Design Lab (Universidad de los Andes)

Jan. 2017 – Dec. 2018 Bogota,Colombia

Thesis Title: Automatic Analysis of Android Closed-Source apps to Support Software Engineering Tasks
Advisor: Mario Linares-Vásquez mlinaresv at uniandes

RESEARCH INTEREST

Software engineering, software evolution and maintenance, software architectures, mining software repositories,application of data mining and machine learning techniques to support software engineering tasks, and mobile development, Software Testing

RESEARCH EXPERIENCE

Doctoral Research Assistant

The Software Design Lab (Universidad de los Andes)

Jan. 2019 – Present Bogota,Colombia

Graduate Research Assistant

The Software Design Lab (Universidad de los Andes)

Jan. 2017 – Dec. 2018 Bogota,Colombia

TEACHING EXPERIENCE

Teacher Assistant

- Automated Test (MISO4208, Graduate)

  Universidad de los Andes

  Jan 2018 – Present Bogota,Colombia

Graduate Research Assistant

The Software Design Lab (Universidad de los Andes)

Jan. 2017 – Dec. 2018 Bogota,Colombia

HONORS & AWARDS

- Google Latin American Research Award 2018
- First Place - Hackaton Against Human Trafficking Organized by UNODC, IBM and Pasos Libres Foundation
- Best Testing Group Testathon Bogota, Colombia

PROJECTS

Masked Face Detection for ATM

- Developed a head classifier to detect masked faces in ATM to potentially prevent the event of robbery.
- Different camera angle, position, image quality, illumination and type of occlusion were the major challenges. Improved the existing accuracy by 20%.

Person Tracking

- Developed, modified and implemented robust object tracker by combining motion and appearance information to learn deep association metrics.

One Shot Learning

- One shot learning is the promising approach to learn good feature when little data is available.
- Achieved 92% accuracy on omniglot dataset using Siamese network with Bayesian optimization.

Automatic Defect Inspection of solar farm using drones

- Regular inspection of solar farm due to its wide size is strenuous.
- Developed a model to classify and localize defect on thermal images captured by drones.

Anomaly detection using Auto-Encoders

- Developed a model to learn regular patterns from sensor data and detect unusual pattern.

Early Warning Fault Detection and Identification

- Developed an LSTM based model to forecast and detect outlier from sensor data.
- Further, classified the given signal into one of the type of outlier.

Sentiment Analysis

- Used bag-of-words, pre-trained Embedding and simple as well as bi-directional LSTM techniques for Sentiment Analysis.