# CAMILO ESCOBAR-VELÁSQUEZ

### PhD Student and Ultimate Frisbee Player

P Bogotá, Colombia

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### **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 Identifi-

- 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.

## **PUBLICATIONS**

## **REFEREES**

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