

# Pedro Madruga

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## Education

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### Nova University Lisbon

MSC IN ENVIRONMENTAL ENGINEERING

Lisbon, Portugal

Sep 2006 – March 2012

### Danmarks Tekniske Universitet

COURSE IN MACHINE LEARNING

Copenhagen, Denmark

November 2019 – November 2019

## Experience

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### Karnov Group Denmark A/S

SENIOR SOFTWARE ENGINEER AND MACHINE LEARNING ENGINEER TRAINEE

- Led project to improve search results using neural networks
- Collaborated on recommender systems project
- Developed and timely delivered multiple applications (frontend and backend) using Javascript
- Lead the initial direction of the JavaScript-based application and development guidelines
- Participated on architectural decisions
- Implemented DevOps solutions using Docker and Google Cloud

Copenhagen, Denmark

May 2017 – Present

### Occam.ooo

FOUNDER AND SOFTWARE ENGINEER

- Led team and project of a mobile app (using JavaScript) for Mobilab (Germany)
- Senior mobile engineer (JavaScript) for WithDipp (USA)
- Performed overall management of the company
- Design, Engineered and delivered mobile app (Nu Events) (<https://nuapp.occam.ooo/>)

Frederiksberg, Denmark

June 2013 – Present

### colego.dk

LEAD DEVELOPER

- Led local and remote team
- Reimplemented internal CMS using JavaScript

Copenhagen, Denmark

June 2016 – October 2016

### colego.dk

SENIOR FRONTEND ENGINEER

- Lead frontend engineer (using JavaScript) and frontend architect
- Developed and delivered backend solutions

Copenhagen, Denmark

July 2015 – May 2016

### Unwire

FRONTEND DEVELOPER

- Developed and timely delivered mobile app for Nordea
- Implemented internal mailing list manager

Copenhagen, Denmark

February 2014 – June 2015

### Competencehouse

FRONTEND DEVELOPER

- Implementation of the Godialog platform

Copenhagen, Denmark

September 2013 – February 2014

### Copenhagenize Design Co.

DATA ANALYST

- Analyzed data of cyclists' behaviour in Copenhagen
- Analyzed data for the Copenhagenize Index 2013
- Implemented company's website
- Calculated environmental impacts of 30km/h zones

Copenhagen, Denmark

November 2012 – August 2013

## Skills

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**Programming Languages / Frameworks:** React, Node, Python, PostgreSQL, Python, Angular, Backbone, React Native  
**Machine Learning / Data Science:** Natural Language Processing, Recommender Systems, Keras, Pytorch, Jupyter  
**Dev Ops:** Docker, Google Cloud Kubernetes

## Projects

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### Machine Learning techniques applied to Heart Rate Variability

*Python, Jupyter Notebooks*

FINAL PROJECT FOR THE MACHINE LEARNING COURSE AT DTU. ESTIMATED: JANUARY 2020

### Nu - Events today

*React Native, Node*

MOBILE APP (IOS + ANDROID)

*<https://nuapp.occam.ooo/>*

### The Bicycle Choreography of an Urban Intersection

*Excel, SPSS*

DATA ANALYSIS OF CYCLISTS' MOVEMENTS IN COPENHAGEN

*<http://tiny.cc/caxahz>*