# Data engineer/ Backend and Frontend developer
## Ruben Lopez Mendoza

Dedicated programmer with global experience on developing tools and pipelines for creating, editing large quantities of vector data for Machine Learning and cartography purposes.

Specialist areas of expertise include, geodata analysis, geodata visualization, cloud platform administration, and full stack developer.

Fan of open source technology and open data, that I mostly use to develop the application.

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**- Linkedin:**
https://www.linkedin.com/in/rub21

**- OpenStreetMap**
https://www.openstreetmap.org/user/Rub21

**- Website**
http://rub21.com

## EDUCATION
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**Berkeley Haas School of Business** — California, EEUU — *Manager Boot Camp*
June 2017

**San Cristóbal de Huamanga National University** — Ayacucho, Peru — *System engineering*

September 2007 - August 2012

**San Cristóbal de Huamanga National University** — Ayacucho, Peru — *Bachelor in systems engineering*

September 2007 - August 2012

## EXPERIENCE
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### Data Engineer

JANUARY 2018 - PRESENT

Development Seed
- Data-team lead (Peru).
- Co-ordinated data projects, allocating tasks and managing outcomes.
- Building and improving tools for geodata processing and mapping .
- Building pipelines for mapping large dataset.

- Building and improving tools for Machine Learning training data generation.
- Building pipelines for Machine learning pre and post data evaluation.
- Machine Learning model evaluation, and running inferences in large dataset of images.
- Front development.
- Backend development.

## Backend developer

SEPTEMBER  2017 - JANUARY  2018

### Space AG
- Backend development for drone image and vector data processing and then offer them in an API.
- Frontend development to display raster and vector data and make analysis over these layers.

## Project Manager and Data Team Lead

OCTOBER 2011 - DECEMBER 2017

### Mapbox -  *GeoData Analyst  and IT Engineering*
- Data-team lead  in Peru.
- Building tools to automate the manual mapping process.
- Building scripts for automating and detection of issues in geocoding and navigation data.
- Developing data projects and mapping in OpenStreetMap.
- Building mapping pipeline and tools for more efficient mapping work.

## Open Data Evangelist

JUNE 2011 06 – SEPTEMBER  2011

### Provincial Municipality of Huamanga
- Creating and developing the Open Data website.
- Conducting outreach projects to help build community understanding of Open Data.
- Undertaking processing of files in open format.

## Website developer  and maintainer

JANUARY  2011 - DECEMBER 2012

### Dirección Regional de Comercio Exterior y Turismo Ayacucho
- Creation of websites.
- Working with partners to develop content and update processes.
- Maintaining website to keep all information updated.

## SKILLS
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### Programming languages
- Javascript - Node.js  - 4 years
  - Building scripts for geodata processing.

- Backend development.
- Java  – 5 years
    - Java desktop, writing plugins for  Java OpenStreetMap editor and Customizing the core of Java OpenStreetMap editor.
- Python – 2 years
    - Building scripts for geodata processing.
    - Building scripts for pre and post Machine learning data processing.
    - Backend development.

## Cloud services platforms

- Amazon Web Services  –  4 years
    - Amazon EKS (Elastic Container Service for Kubernetes) for  deploying   services or mapping infrastructure in  kubernetes.
    -  AWS Fargate a serverless compute engine for processing large data in docker containers.
    - AWS Lambda with Amazon SQS –  for a small chunk of data  processing but a large amount of these data.
    - Cloudformation management to spin up resources with autoscaling.
    - RDS  and EC2 management.
    - S3 management for storing data.
- Google Cloud Platform – 2 years
    - Google Kubernetes Engine (GKE) For deploying services and  Mapping infraestructures.
    - Cloud Storage buckets, for storing data.
- Azure
    - Azure Blob storage.
    - Azure Virtual Machine.

## DevOps tools

- Docker
    - Daily usage for development and production.
- Kubernetes
- Github
- Gitlab
- CircleCI

- Postgres – PostGIS
- MongoDB

## Geo Tools

- Qgis
- GDAL
- Node/Python scripts for processing raster and vector data.
- Java OpenStreetMap editor

## Data visualization

- Mapbox GL
- Leafletjs
- rCharts/eCharts

## Web development

- React
- Redux
- HTML
- CSS – Sass and Less

## AWARDS
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- Obtained the second place in **ADAPTATÓN FRENTE AL CAMBIO CLIMÁTICO TRUJILLO** hackathon in 2018, creating an application to offer alternative routes in flooding crisis organized by the Trujillo - Peru municipality

- Diploma for having obtained the **FIRST PLACE IN THE CATEGORY OF DEGREE THESIS in the NATIONAL EXTERNAL TRADE COMPETITION AND TOURISM, MINCETUR – 2013 EDITION.**

- Award in merit to the good academic performance – **BEST STUDENT OF THE PROFESSIONAL TRAINING SCHOOL OF ENGINEERING OF SYSTEMS**, Awarded by the National University of San Cristóbal de Huamanga.

## LANGUAGES
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- Native Spanish
- Advanced English
- Advanced Quechua