

# HEITOR CHANG

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## PROFESSIONAL EXPERIENCE

### BELGINGUR, LLC., REYKJAVIK, ICELAND (REMOTE)

*Senior Back-End Engineer*

*Jan. 2024 – present*

- Modernized a meteogram chart and map widget by refactoring it as a Lit-based web component with TypeScript, improving maintainability and reusability.
- Developed and implemented an automated Python pipeline to process raw radar data and assimilate it with wind and precipitation forecasts.
- Implemented a closest points linear regression model with SciPy in Python to reduce bias and statistical error.
- Migrated critical portions of a Fortran library for volcanic activity modeling into the main Python application, leveraging NumPy and NetCDF functionalities.

### FREELANCE SOFTWARE DEVELOPER, SÃO PAULO, SP

*Senior Full-Stack Developer*

*Mar. 2023 – Dec. 2023*

- Created REST APIs in Python with FastAPI, backed by PostgreSQL, and deployed to Google Cloud to compare time series data between observed and forecasted precipitation.
- Developed a static site generator in Python to render and display documents with a practical navigation system.

### MEDIAFLY, INC., CHICAGO, IL (REMOTE)

*Senior Software Engineer, Data and Client Squad*

*Aug. 2022 – Feb. 2023*

- Extended a Python back-end service handling customer integration with Salesforce's API to allow the creation of new objects with custom metadata.
- Corrected data inconsistencies in the Python pipeline code and upgraded the audio processor to attenuate noise and remove segments of silence.

### TEMPO OK TECNOLOGIA EM METEOROLOGIA LTD., SÃO PAULO, SP

*Senior Full-Stack Developer*

*Jun. 2020 – Aug. 2022*

- Architected the company website in Django with custom user management and JWT authentication.
- Built FastAPI endpoints to communicate with a PostgreSQL database using Google Cloud Functions and Cloud Run, leveraging Docker containers and cloud Continuous Deployment.
- Created a geospatial dashboard containing satellite imagery overlays computed from NASA's scientific data and weather stations' historical data, obtained by accessing their public APIs.

### PONTUAL EXPORT & IMPORT LTD., SÃO PAULO, SP

*Full-Stack Developer*

*Jan. 2014 – Jun. 2020*

- Used MA (Moving Average) indicators in a Django project to predict the demand for 600 products and calculate ideal amounts for restocking.
- Created a REST API with the PHP Slim framework for consumption by a React app in the client-facing website.

## EDUCATION

- B.S. in Mathematical and Computational Science — Stanford University, CA.
- Fluent in English and Brazilian Portuguese. Intermediate knowledge of Italian.