



Bijan FALLAH

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## SUMMARY

With a solid background in physics, mathematics and climate science I excelled challenging problems while developing cutting edge solutions for scientific questions. For the last 8 years I have been wrangling, querying, analyzing, visualizing and communicating a variety of complex data-set using advanced analytic tools to the experts and public audience.

## EXPERIENCE

**CLIMATE DATA ANALYST - POTSDAM INSTITUTE FOR CLIMATE IMPACT RESEARCH** *Oct. 2020 - present / Potsdam*

- Dynamical Downscaling of CMIP-like simulations over CORDEX Asia
- Creation of open access, high-resolution climate change projections dataset

**SATELLITE DATA ASSIMILATION - FREIE UNIVERSITÄT BERLIN** *Oct. 2018 - Sept.2020 / Berlin*

- Data Assimilation of satellite data in an air pollution model and improve the forecast skill (30% under clear sky conditions)
- Develop scientific codes for data assimilation and satellite data retrieval (Bash, Python, Fortran)
- Automated data analysis and visualization of the forecast and observation (~ 2TB)

**PALEO-DATA ASSIMILATION - FREIE UNIVERSITÄT BERLIN** *Sep 2015 -Oct 2018 / Berlin*

- Implementation of Data Assimilation techniques for climate models in Fortran, Python, Bash
- Processing of unstructured big data sets including data wrangling, data querying and data visualization
- Coordinated a working group of 3 PostDocs and 1 student from 3 different institutes and writing 3 joint reports

**DATA ANALYST - FREIE UNIVERSITÄT BERLIN** *Dec 2014 - Sep 2015 / Berlin*

- Conducted high resolution (~ 1km) short-term urban climate forecasting over Berlin
- Build logistic regression models to predict the road conditions (dry/wet)
- Held R programming workshops for international students from diverse disciplines

## EDUCATION

### Academia

**FREIE UNIVERSITÄT BERLIN** *2011-2015*

PHD, NATURAL SCIENCE

Supervisor: Prof. Dr. Ulrich Cubasch [Thesis: Modelling the Asian Paleo-hydroclimatic Variability](#)

**UNIVERSITY OF TEHRAN** *2003 - 2006*

MSC, METEOROLOGY

**IRAN UNIVERSITY OF SCIENCE AND TECHNOLOGY** *1998 - 2003*

BSC IN APPLIED PHYSICS

### Further Education

**UDACITY DEEP LEARNING NANODEGREE FOUNDATION** **CERTIFICATE** *2017*

**UDACITY DATA ANALYST NANODEGREE** **CERTIFICATE** *2020*

## SKILLS

**PROGRAMMING LANGUAGES** *Experienced:* Python | Bash | SQL *Familiar:* Javascript | Fortran90 | R | Matlab

**SOFTWARE DEVELOPMENT** Programming Paradigms | GIT | DevOps Lifecycles

**FRAMEWORKS & LIBRARIES** Jupyter | Matplotlib | Numpy | Pandas | Scikit-learn | PyTorch | Tensorflow | bokeh

**LANGUAGES** *Native:* Persian *Fluent:* English (IELTS Academic 6.7) *Fluent:* German (Goethe-Zertifikat C1)