# **Amir NAAR**

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#### **About Me**

I am a Python Developer with a foundation in Bioinformatics, specializing in Backend Development and driven by curiousity across various fields. I have over 7 years of experience handling large-scale datasets, mostly through genome sequencing.

I have a deep interest in Web Development, with Django as my framework of choice. I develop websites with HTML, CSS, JavaScript and have strong skills in Python and scripting languages.

#### **Skills**

#### Development.....

Languages: Python, Perl, HTML, CSS, Javascript, PHP, Bash.

Data analysis: Pandas, Numpy, Matplotlib, R.

Frameworks: Django, Ruby on Rails.

Tools: JupyterLab, FastAPI, Git, Snakemake, Heroku.

Database Management System: MySQL, PostegreSQL, MariaDB.

Languages.....

• French: fluent (european level C2).

English: professional competence (C1).

#### Education

### - CS50's Web Programming with Python and JavaScript

HarvardX 2024

HTML, CSS, Git, Django, database design, APIs, user interfaces, and cloud services like GitHub and Heroku. A significant portion of the course is dedicated to Django development, teaching students how to leverage this powerful Python web framework for building scalable, database-driven web applications with features like models, migrations, and robust backend functionality.

#### - Web Development Bootcamp

Le Wagon 2023

Intensive coding bootcamp learning to design, implement and ship web applications from the back-end to the user interface. Responsive design, HTML, CSS, Bootstrap, Javascript, Ruby on Rails, SQL databases, APIs, Git, Github, Heroku.

#### - Master Degree in Bioinformatic

University of Bordeaux 2013–2015

Programming (Python, Java, C++), Software Engineering, statistics, algorithmics, database, omics, imaging, biomodelisation, dataming, project management.

#### - Bachelor of Science (Biology)

University of Bordeaux

2009-2012

Genomics, molecular biology, biochemisty, statistics, immunology, animal and vegetal physiology, mathematics applied to biology, informatics: advanced programming and database, neurobiology.

### **Professional experiences**

- Bioinformatician, Data Science & Tertiary Analysis SOPHiA GENETICS. Bidart.

December 2019 - December 2022

#### Maintenance, Development & Operations.

- Development of a new API to access data from our internal database with FastAPI.
- O Fast-track updates of the release genes panels with regular migrations
- O Integration of a reference clinical database (ClinVar) to the genome browser (Alamut Visual).
- Filtration of the gene panels and integration the Matched Annotation from NCBI and EMBL-EBI (MANE) prioritization transcripts for the large panel products.
- Regular update of the variants databases.
- Maintenance of the genome browser backend.
- Internal & External Bio-IT Support.
- Python, FastAPI, PHP, Bash, PostegreSQL, MySQL, SnakeMake, Conda, Docker.

#### - Bioinformatician, Department of Biology and Medical Pathology

Gustave Roussy, Villejuif.

February 2018 - November 2019

Management of data analysis from high throughput sequencing (NGS) in diagnosis.

- Development and maintenance of pipelines to treat and analyze different types of tumors in somatic and constitutional genetics for diagnosis: lung cancer, colon cancer, melanoma, glioma, hematological malignancies, breast / ovarian cancer.
- Management of NGS data from different types of sequencers: MiSeq, NextSeq, NovaSeq, Vela, S5XL.
- Resolution of routine issues related to the activity of the Department of Biology and Medical Pathology.
- Involvement in accreditation procedures, quality documentation.
- Management, maintenance, development of analyzes in personalized medicine for translational research (MOSCATO, SAFIR, OncoMine, OncoLung ...).
- O PHP, MySQL, Perl, HTML, JavaScript.

#### - Bioinformatician, Biological Oncology Laboratory

Centre Hospitalier et Universitaire (C.H.U.), Poitiers.

September 2015 - February 2018

Development and implementation of NGS technology in routine for the molecular analysis of tumors.

- Management and analysis of NGS data within the lab labeled by DHOS and INCa.
- O Pipeline developments to treat and analyze different types of tumors in somatic genetics: lung cancer, colon cancer, melanoma, glioma, hematological malignancies, breast / ovarian cancer in particular.
- O Quality control of data, search for variants, annotation of mutations, reporting: PDF (LaTeX), EXCEL and HTML.
- O Perl, Python, Bash, Java, Html, JavaScript.

#### - Software Developer Intern Student, Genome Biology Computational Support Unit

EMBL (European Molecular Biology Laboratory), Heidelberg, Germany.

March-August 2015

### Development and integration of analysis tools for high throughput sequencing

- O Development and improvement of tools for analysis and management of NGS data.
- Integration on the Galaxy platform of new tools for NGS data analysis. Analysis, workflows and comparison with others NGS tools (MACS, SICER).
- Benchmarking of NGS tools (performance analysis)

#### - Assistant Developer

INSERM (U862), Neurocentre Magendie, Bordeaux, France.

June 2014

#### Development of a statistical test of comparison of models of cerebral connectivity.

Implication in the development of scripts (R, Octave, Lisrel) for making the analysis tests.

#### - Co-developer of a plugin for a software of image's analysis

Centre d'Etudes Nucléaires de Bordeaux Gradignan, Bordeaux, France.

February–May 2014

#### Reconstruction and analysis of spectroscopic images.

O Plug-in developed in Java, which allows analysing the acquisition data obtained from a particle accelerator.

#### **Publications**

#### Publications.....

- Portet, S.; Naoufal, R.; Tachon, G.; Simonneau, A.; Chalant, A.; Naar, A.; Milin, S.; Bataille, B.; Karayan-Tapon, L. Histo-Molecular Characterization of Intracranial Meningiomas Developed in Patients Exposed to High-Dose Cyproterone Acetate, An Antiandrogen Treatment. *Neuro-Oncology Advances*, 2019.

- Devès, G.; Daudina, L.; Bessy, A.; Buga, F.; Ghanty, J.; Naar, A.; Sommar, V.; Michelet, C.; Seznec, H.; Barberet, P. An ImageJ plugin for ion beam imaging and data processing at AIFIRA facility. *Nucl. Instr. Meth.* 

## Miscellaneous

- Private courses in mathematics : School certificate level. 2008-2012.
- Journey : Belgium, France, Germany, Morocco, South Africa, Spain, Switzerland.
- Hobbies : Football, Tennis, Footing, Cinema.
- Driving licence.