





# Amir NAAR

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## About Me

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I am a Python Developer with a foundation in Bioinformatics, specializing in Backend Development and driven by curiosity across various fields. I have over 8 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

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### 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, PostgreSQL, MariaDB.

### Languages.....

○ French: fluent (european level C2).

○ English: professional competence (C1).

## Education

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### - 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, datamining, project management.*

### - Bachelor of Science (Biology)

University of Bordeaux

2009–2012

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

## Professional experiences

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### - 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.
- Fast-track updates of the release genes panels with regular migrations
- 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, PostgreSQL, 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 ...).
- 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.
- 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.
- Quality control of data, search for variants, annotation of mutations, reporting: PDF (LaTeX), EXCEL and HTML.
- 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

- 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.

- 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.; Chaland, A.; Naar, A.; Milin, S.; Bataille, B.; Karayan-Tapon, L. Histo-Molecular Characterization of Intracranial Meningiomas Developed in Patients Exposed to High-Dose Cypoterone 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

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- 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.