

# Kenan OGGAD

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## FORMAL EDUCATION

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### Paris-Saclay University

2023 - Present

#### Double Bachelor's Degree in Biology and Computer Science

Relevant coursework: Linear Algebra, Molecular Biology, Calculus, Biochemistry, Bioinformatics, Genetics, Statistics, Python, and various CS classes.

*Objective: Pursue a PhD in Synthetic Biology complemented by advanced studies in Artificial Intelligence.*

### Aix-Marseille University

2022 - 2023

#### Master 1 in Fundamental Physics (Exceptional Admission)

Granted exceptional admission based on self-study and demonstrated prerequisites. (No degree was offered for this program.)

Relevant coursework: Quantum Mechanics, Statistical Physics, Cosmology, Particle Physics, Advanced Mathematical Methods.

### General Baccalaureate (Independent Candidate)

2022 - 2023

Specialized in Mathematics and Physics-Chemistry. Completed alongside Master's coursework.

### CNED (Centre National d'Éducation à Distance)

2021 - 2022

Final Year of High School (*T<sup>ale</sup>* / 12th Grade)

Graduated with an average of 19.8/20 (+4.0 GPA). Specializations: Mathematics, Physics-Chemistry.

Optional subjects: Advanced Mathematics, Chinese (Lv2), Japanese (Lv3). After skipping the first year of high school.

## INFORMAL EDUCATION

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### EdX HarvardX/MITx

2024 - Present

Completed a selection of courses on the edX platform (*username: kenan.oggad*):

- MITx: Principles of Synthetic Biology
- MITx: Machine Learning with Python: from Linear Models to Deep Learning
- HarvardX: Machine Learning and AI with Python
- MITx: Machine Learning for Healthcare
- HarvardX: Case Studies in Functional Genomics
- MITx: Making a Cell Therapy: Principles and Practice of Manufacturing
- MITx: The Science and Business of Biotechnology
- HarvardX: Technology Entrepreneurship: Lab to Market

### Biosensor Summer school — Huazhong University of Science and Technology

06/2024

Selected to participate in a summer school at Huazhong University of Science and Technology (HUST) in Wuhan, China—one of the top universities in the country for biotechnology and the leading institution for biomedical engineering. The main study topic focused on biosensors and sensory receptors in transgenic *C. elegans*.

### BCI & Neurotechnology Spring School — g.tec/BR41N.IO

04/2024

Completed an online spring school covering recent innovations in Brain-Computer Interfaces (BCI) and neurotechnologies. Including 140 hours of coursework and a certificate of completion.

## EXTERNAL INVOLVEMENTS

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### GeneLab AWG OSDR

12/2024 - Present

Active collaborator with NASA GeneLab's Analysis Working Groups:

- MultiOmics AWG
- AI/ML AWG
- Human AWG

### iGEM Competition 2024 — Evry-Paris-Saclay Team

10/2024

Participated in both the dry lab and wet lab in the overgraduate category. Our project, PHAGEVO, merged the PANCE and Evolution.T7 systems to induce targeted mutagenesis and evolve a protein of interest both *in vitro* and *in silico*. Achievements include:

- Awarded a Gold Medal.
- Ranked Top 10 Overgraduate Teams.
- Nominated for the Best Foundational Advance Project.

## Hackathon D4GEN — Genopole

03/2024

Fine-tuned a generative AI transformer model for protein-ligand pairs on the XylS protein model for the detection or degradation of microplastics. *Award: Jury's Favorite Award, €2500 Cash Prize.*

## Hackathon DigH@cktion

04/2024

Enhanced the sharing of medical expertise in oncology by training a Large Language Model (LLM) to improve Multidisciplinary Team Meeting (MTM) sheets. Techniques used included: Regular Expressions (Regex), PDF Parsing and Optical Mark Recognition (OMR).

## SKILLS

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### Programming and Technical Skills

- **Programming Languages:** Python (Machine Learning with TensorFlow, PyTorch), C++/C (Backend and Algorithms), R (Statistical Modeling), JavaScript/HTML/CSS (Fullstack Development).
- **Software and Tools:** Benchling/SnapGene (Plasmid Design), KiCad (PCB Design), L<sup>A</sup>T<sub>E</sub>X & T<sub>E</sub>X (Document Composition), Git (Version Control).
- **Operating Systems:** Proficient in Linux and Unix environments.

### Laboratory Skills

- **Molecular Cloning:** CRISPR-Cas9, Gibson Assembly, and Restriction-Ligation methods.
- **Analytical Tools:** Nanodrop Spectrophotometer for nucleic acid and protein quantification.
- **Additional Techniques:** PCR, Gel Electrophoresis, Cell Culture, and Protein Purification.

### Languages

- **English:** Fluent.
- **French:** Native.
- **Mandarin:** Intermediate.

## RESEARCH EXPERIENCE

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### Bioinformatics Research Internship — IBISC Laboratory

06/2024

Completed a research internship with the AROB@S bioinformatics team at the IBISC Laboratory. Focused on analyzing the dark proteome and characterizing the Preimplantation Factor (PIF) protein, exploring its structure and potential biological functions.

## PUBLICATIONS

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Coming soon... :)