RITA FERNANDES

rita.joao.fernandes@gmail.com ✉

+49 160 95335737 📱

Hamburg, Germany 📍

in GitHub iD

Biochemist with over five years of expertise in RNA and protein chemistry. Passionate about solving research challenges and eager to bring meaningful contributions to the work team. Bioinformatics enthusiast and determined to improve programming skills. Looking forward to receive your feedback!

PROFESSIONAL EXPERIENCE

09/10/2023 – 18/12/2023

Internship in Software Development

Byonoy GmbH, Hamburg

- Development of a small desktop application using C++/QML in Qt framework.
- Development of a graphical user interface for the production team.

01/05/2019 – Current

PhD in Molecular Biology

Molecular Plant Genetics, Institute of Plant Sciences and Microbiology
Hamburg Universität, Hamburg

- Familiar with NGS* data analysis (lncRNAs pipeline) on macOS terminal and HPC*.
- Skilled in plant grafting combined with RNA-seq.
- Extensive expertise in protein production, purification, and RNA/DNA extraction.
- Proficient in protein-RNA interaction assays: MST* and UV-crosslinking/MALDI-TOF*.
- Experienced in protein characterization techniques: DLS*, SAXS*, MALLS*, TSA*.
- Proficient in enzymatic *in vitro* transcription.
- Mentored five students and led lab classes for up to 15 master students, earning consistent positive feedback.
- Improved master course, boosting experiment efficiency by 80% and reducing costs by 15% through entrepreneurial initiative.

06/12/2018 – 15/04/2019

Researcher in Chemistry

Photoresponsive Self-Assembled Nanomaterials for Drug and Gene Delivery Project (PTDC/QUI-COL/32351/2017).

LAQV-REQUIMTE, Faculdade de Ciências e Tecnologia
Universidade Nova de Lisboa, Portugal

- Chemical synthesis of photocaged amino acids and amphiphilic flavonoid based compounds.
- Surfactant materials analysis by conductivity, tensiometry and spectroscopic techniques.
- Host-guest supramolecular chemistry.
- Photochemistry of photocages.
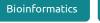- Experience in UV-visible absorption, emission and NMR* spectroscopies and ITC*.

SKILLS

Development

R/RStudio	Markdown	Git/GitHub	Python	C++

Qt/QML	BASH	SQL/MySQL	CSS HTML JS

Other

- Bioinformatics
- -OMICs
- Molecular Biology
- NGS
- Biochemistry
- Biophysics
- Drug Delivery&Release
- Data analysis
- Research
- Communication
- Teamwork
- Fast learner
- Adaptability
- Problem-solving
- Resilience

EDUCATION

02/05/2023 – 19/12/2023
Applied Bioinformatics&Biostatistics
CQ Beratung + Bildung, Berlin

2019 – Current
PhD in Molecular Biology
Institute of Plant Sciences and Microbiology, Hamburg Universität, Hamburg

2016 - 2018
MSc in Biochemistry
Faculty of Sciences and Technology, Universidade Nova de Lisboa, Portugal

2012 - 2016
BSc in Biochemistry
Faculty of Sciences and Technology, Universidade do Algarve, Portugal

LANGUAGES

Portuguese (native) — 100%

English (proficient) — 100%

Spanish (independent) — 85%

German (basic) — 25%