# KAI WALDRANT

BIOINFORMATICIAN | FRONTEND SOFTWARE ENGINEER

Hoboken, Belgium

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## PROFILE

Bioinformatician with several years of experience working in life sciences consultancy and data-intensive environments, increasingly focusing on frontend software development. Through professional work and structured hands-on learning, I have gained experience contributing to frontend components and interfaces using modern JavaScript frameworks such as React and SolidJS. I am motivated to grow as a frontend engineer within multidisciplinary biotech projects, while leveraging my domain knowledge, software engineering fundamentals, and familiarity with consultancy-driven project work.

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## SKILLS

Languages**: Dutch** (native)**, English** (fluent)
Programming & Web**: TypeScript, JavaScript, React, SolidJS, HTML, CSS**
Backend & Data: **Python, R, Bash, SQL (PostgreSQL, MySQL), Flask, PHP**
DevOps & Infrastructure: **Docker, Kubernetes** (Argo, basic familiarity)**, CI/CD (Github Actions, Argo workflows), AWS, GCP**
Workflow & Tooling: **Git, Nextflow, Viash, Quarto**

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## EXPERIENCE

**Bioinformatics workflow developer @ Data intuitive**
Nov 2022 – Jan 2025

- Refactored and optimized benchmark pipelines using **Viash**, **Nextflow**, **Python**, **R**, **Bash** and containerized tools. (OpenProblems.bio)
- Built dynamic benchmarking result websites using **Quarto (R, Python, Bash)** and **SolidJS/TypeScript**.
- Deployed scalable compute resources for **Nextflow** on **AWS Batch** and **GCP Batch**.
- Contributed to CI/CD setup for **Viash** packages using **GitHub Actions**, **Kubernetes**, and **Argo Workflows**.

**Bioinformatician consultant @ Science talents**
Jul 2021 – Mar 2022

- Automated SARS-CoV-2 sequencing data analysis pipelines using **Python**.
- Built a complete NGS framework, including backend services and a Flask-based web interface with user management.
- Managed sequencing data lifecycle and supported lab implementation of **Illumina MiSeq**.

**Application Developer @ Sonic Healthcare Benelux (AML)**
Nov 2020 – Jul 2021

- Developed and maintained **PHP/MySQL** application used in healthcare production environment.
- Recovered and rebuild critical business applications following a major cyberattack.
- Provide IT support.

### Bioinformatician @ Agilent Technologies
Sep 2018 – Oct 2020

- Developed and maintained pipelines for NGS diagnostic pipelines under ISO17025 standards using **Perl**, **R** and **MySQL**.
- Supported both **R&D and production pipelines**
- Implemented secure **AWS**-based backup solutions for **data integrity**.

### Lab technician @ Agilent Technologies
May 2015 – Oct 2020

- Set up an **ISO17025**-accredited lab for routine diagnostics.
- **Validated** laboratory instruments and software systems.

### Lab technician @ CMPG, KU Leuven
Feb 2013 – Apr 2015

- Assisted in Microbiological research in academic setting.

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## EDUCATION

### Advanced Bachelor Bioinformatics
Hogeschool West-Vlaanderen, 2017 – 2018
Internship: Quality trending platform for Illumina MiSeq, MiniSeq and NextSeq instruments. *Agilent Technologies*

### Post Graduate Bioinformatics
Hogeschool West-Vlaanderen, 2012 – 2015

### Bachelor Pharmaceutical and Biological Laboratory Techniques
Plantijn Hogeschool, 2009 – 2012
Internship: synthesis and biological activity of new multi-target naphthalimide and bisnaphthalimide derivatives. *Robert Gordon University, Scotland*

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## INTERESTS
Fitness, home renovation, woodworking, fantasy literature, and aspiring chef. Passionate about exploring new technology trends. Most importantly, I cherish time with my wife and two lovely daughters.

## AWARDS & CERTIFICATIONS
✓   BVLT vzw 2011-2012 for best thesis (Plantijn Hogeschool)