Hielke Walinga

Personal

Name: Hielke Walinga

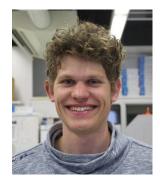
Birth: The Netherlands | 1 Januari 1996

Address: The Netherlands | Delft

Phone: +316 482 626 04

Email: hielkewalinga@gmail.com
Licesences: Driving License AM, B
Github: https://github.com/hwalinga

Linkedin: https://www.linkedin.com/in/hwalinga



About

I started my academic career with the very scientific oriented program of Nanobiology. However, in some courses I discovered I much liked the control of information I could get with a computer, and bridged to Computer Science. Over time I worked on various projects and jobs where I had the oppurtunity to gap between the choatic nature of the scientific process and the exact world of software engineering. I find joy in capturing all the undocumented details into structured computer programs.

Education

2019/9-2024/5 | Master's Computer Science | TU Delft

Data Science Track: Focus on machine learning, algorithms, and bioinformatics.

Master's Thesis | Learning state machines from big log data | S. Verser, Algorithms Using the power of C++ and PostgreSQL, I worked on a novel machine learning algorithm to learn state machines

from big log data.

2014/5-2018/11 | Bachelor's Nanobiology | TU Delft & Erasmus Rotterdam

Nanobiology contains a combination of physics, mathematics and biology.

Bachelor's Thesis | GWAS of autoimmunity in CRISPR | Brouns lab & Utrecht TBB Finding self-targeting events in a database of more than 100.000 genomes using mostly Python and Bash.

2008-2014 | Secondary Education csg Bogerman Sneek

Gymnasium: Natuur & Techniek

Work experience

2023/5-2023/8 | Data engineer

Genescape | startup advising on targets for novel drug development

Created pipeline in Snakemake that maps out gene variants frequencies for discovery novel drug development. The pipeline pulled data from various databases using a REST API and combined the most imporant information

in an Excel sheet.

2020/2-2023/8 | Software engineer

Single Quantum | scaleup manufacturing single photon detectors

Developed a Laboratory Information Management System (LIMS) using Django and VueJS for managing and analysis of test data to replace the old system using Google Sheets. Then assisted in rolling out Airtable as the Enterprise

Resource Planning (ERP) system and connecting it to existing infrastructure.

2019/1-2019/8 Research Assistant Bioinformatics Brouns lab TU Delft

The Brouns lab is a wet lab research group specialized in CRISPR and microbe bacteriophage interactions. Genome

assembly analysis and pipeline writing in the Linux cluster. Assisted with publication of 2 research papers.

2015/9-2019/7 | Teaching assistant | Nanobiology programme

Assisted with the courses: Electrical Instrumentation, Computational Science, and Bioinformatics.

Extracurricular

2017/1-2017/11 | TU Delft D:DREAM Team iGEM

In a multidisciplinary team helped developing an on-site testing device for antibiotic resistant bacteria, using

CRISPR-Cas13a. My role involved bioinformatics and taking the lead in building the website.

Awarded with the Grand Prize (overgrad) and 8 special awards.

2017/9-2018/8 | Treasurer Stichting SurvivalStrijd Delft

Managed finances of a 800 participant sports event that had doubled its budget.

2016/9-2017/8 | Treasurer S.B.V. Slopend (Outdoor sports association)

Implemented the use of an accounting program to manage the increasing number of members.

Tech

Advanced:

Python: Django, Numpy, Scipy, Snakemake, PyTorch

Web: HTML5/CSS3, JavaScript (ES6+), VueJS, Cypress, Bootstrap Intermediate: Linux (Bash, AWK, Slurm, etc.), C/C++, R, (Postgre)SQL, Airtable

Competencies

Software: Version Control (Git), CI/CD, Software Testing, Documentation, REST API

Computer Science: Datascience, Algorithmics, Statistics, State machines

Bioinformatics: Genome Assembly, Variant Calling, Haplotype Phasing, Genomics, Genetics

Traits

Problem-solving, Results-driven, Collaborating, Precise, Trustworthy, Independent, Perseverant, Helpful.

Hobbys

Boardgames, Simrally, Programming, Reading, Piano, Survivalrun.

Languages

English: Proficient
Dutch: Native
Frisian: Native