

Werkstudent/Masterand (Bio)Informatik - All About Pangenome (d/m/w)

Pangenome: Aligned sequences from multiple individuals of a species

Pangenome Graph: Compressed data structure to store a pangenome

Pantograph: Computomics' interactive pangenome browser

Your Opportunities

- ▶ Setting up showcase pangenome visualizations with Pantograph (plants and/or 1,000 humans) (Applied Bioinformatics)
- ▶ Integrating gene expression data into Pantograph (Backend and Frontend work: C++ and TypeScript)
- ▶ Streamlining pangenome-based genotyping (Applied Bioinformatics)
- ▶ Improving the visualization of repeat sequences (Algorithm development in arbitrary programming language, e.g. Python, Rust, C++, ...)

Your Qualifications and skills

- ▶ University degree in bioinformatics/quantitative biology/mathematics or a similar discipline
- ▶ Experience in programming, shell scripting, and data management in HPC
- ▶ Basic knowledge of genetics and next-generation sequencing
- ▶ Familiarity with genomic datasets is a plus
- ▶ Good oral and written communication in English
- ▶ Capable of working autonomously as well as a proactive team player

We offer

- ▶ 6-month master thesis, alternately an internship
- ▶ Working from the Computomics office in Tübingen
- ▶ Partial mobile work possible
- ▶ Flexible work hours
- ▶ Ergonomic office furniture and equipment
- ▶ Training, education and in-house knowledge transfer
- ▶ Working in an innovative, dynamic and international company

For more information, please contact:

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Our Mission

We provide bioinformatics services for the analysis of next-generation sequencing data of DNA and RNA, from experimental design up to complex interpretations.

We focus on agricultural biotech, breeding and plant protection companies. Our services are used by researchers, by bioinformaticians and by quality managers.

Our Unique Qualities

- ▶ We use validated methods and quality controls at every step
- ▶ Our results are reproducible and accompanied by a detailed report
- ▶ We are independent of sequencing providers, technologies and commercial software companies
- ▶ Our analyses are customized to client needs with proprietary algorithms and award-winning open source tools
- ▶ We guarantee the security of client data and handle IP contamination

Our Vision

We bring sustainable economic success to our clients by enabling them to produce stable, added-value crops, thus contributing to resource-efficient agriculture that can feed the planet.

Our Values

- ▶ Passion for our products and for our work
- ▶ Amicable, collaborative, honest relationships with our clients and with each other
- ▶ Respect towards everyone and towards the environment
- ▶ Efficiency and the desire to improve

Working for Computomics

Computomics offers the opportunity to work in an entrepreneurial, open, and intellectually challenging culture. We focus on quality and professionalism and aim to have amicable relationships with our clients, our partners and among ourselves. We also offer an attractive compensation package.

We prefer ownership over hierarchy, and we facilitate learning and venturing. We work with bright, talented people in a challenging, diverse, and rapidly evolving domain.

At Computomics, we foster the combination of innovation and focus; we combine accountability with responsibility, and encourage initiative, teamwork and respectful, candid and open communication.

Working for Computomics is a great way to be part of a company where you will make a difference.

Quick Company Overview

Founded	2012
Origins	Max Planck Institute for Developmental Biology and University of Tübingen Spin-off
Managing Director	Dr. Sebastian J. Schultheiss
Solution	Custom data analysis for crop breeders, bioinformaticians and quality controllers in plant biotech, breeding and crop protection
USP	Machine learning technology behind all future crops
Headquarters	Tübingen, Germany