Benedikt Christian Clemens

Biomedical Data Scientist | benedikt.c.clemens [at] gmail.com

Research Experience

Nov 2023 – Sep 2024

University Hospital Bonn, Germany
Bioinformatician at the <u>Felix Meissner</u> Lab
- Conducted analysis of surgical and medical data to identify candidates for a longitudinal study on the Systemic Inflammatory Response Syndrome (SIRS). Plasma proteome measurements were utilized to identify biomarkers for early intervention
- Developed Python modules to automate and streamline spatial proteomics data analysis for wet-lab scientists. These modules are integrated into a collaborative database, enabling intuitive visualization of protein co-localizations post-treatment, different representations of spatial protein profiles, and distance measurements between protein profiles
- Worked on data imputation techniques for low abundance proteins in proteomic datasets

June 2022 – Dec 2022

Massachusetts General Hospital, USA
Bioinformatician at the <u>Wilhelm Haas</u> Lab
- Automated the labs sample preparation
- Developed novel methods to purify plasma proteins
- Analyzed proteomic data to benchmark sample preparation techniques
- Processed over 1,200 patient samples for a large-scale lung cancer study

Oct 2021 – Dec 2021

Massachusetts General Hospital, USA
Intern at the <u>Wilhelm Haas</u> Lab
- Maintenance, troubleshooting and reparation of mass spectrometers and chromatographs
- Proteomic sample preparation

June 2021 – July 2021

University of Bonn, Institute of Genetics, Germany
Intern at the <u>Walter Witke</u> Lab
- Studied the conditional knockout of the cytoplasmic FMR1-interacting protein 1 (CYFIP1) gene and its role in synaptic development

Education

Apr 2023 – Present

Life Science Informatics Master (University of Bonn, Germany)
Selection of attended courses:
- Visual Computing (Computer Vision & Data Visualization) → Best student, 4.0/4.0
- Computer Science for Life Scientists (object-oriented programming, data structures, algorithmic and numeric methods) → Among top 5 students, 3.7/4.0
- Programming Lab (advanced Python) → 4.0/4.0
- Mathematics for Life Scientists → Best student, 3.3/4.0
- Molecular Modeling and Drug Design → Among top 3 students, 3.7/4.0
- Machine Learning → practical training in graph neural networks and time series analysis

Overall GPA: 3.7/4.0

Oct 2019 – Apr 2023

Bachelor of Science in Biology (University of Bonn, Germany)
- Specialization in bioinformatics and proteomics
- Overall GPA: 3.58

Extracurricular activities & work experience

May 2021 - Present

Co-Founder of a local environmental initiative:
Deutscher Jugendbund für Naturbeobachtung (DJN) Ortsgruppe Bonn/Rhein-Sieg, Germany
- Observing species of the region with a team of ornithologists and entomologists
- Organizing excursions to provide education about local flora and fauna

Oct 2018 – Oct 2020

Social worker at Domizil am Venusberg
Working with residents requiring the highest level of care due to physical disabilities, late-stage cancer, and/or dementia

Jan 2003 – June 2016

Professional athlete (Judo):
1. Godesberger Judo Club, Bonn, Germany
- Achieved several placements (including gold, silver, bronze) over a 5-year period (2011-2016) in international tournaments and at the West German Championships
- Assistant trainer
- Referee for local tournaments
- Supervision of young athletes