

Zhehao Hu

Curriculum Vitae

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EDUCATION

M.Sc. Biology

Universität Hamburg

Faculty of Mathematics, Informatics and Natural Science

10/2023 - 09/2025(expected)

Current Overall GPA: 3.9

Courses:

- Marine Deep-Sea Benthic Habitats and Biodiversity (GPA: 4.0)
- Molecular Parasitology (GPA: 4.0)
- Evolutionary Systematics (GPA: 3.7)
- From Population Genetics to Community Ecology (July, 2024)
- Cellular and Molecular Immunology (November, 2024)

B.Sc. Biology

Universität Hamburg

Faculty of Mathematics, Informatics and Natural Science

10/2020 - 03/2024

Overall GPA: 3.0

Elective Courses:

- Biological Oceanography and Fisheries Science (GPA: 4.0)
- Methods of Open Field Ecology (GPA: 4.0)
- Biodiversity of Fungi (GPA: 4.0)
- Introduction of Geographic Information System (Ungraded)
- Molecular Methods of Animal Physiology (GPA: 3.7)
- Data Analysis in Ecology with R (GPA: 3.7)

Course works:

- Gradient analysis of floodplain grassland: species community (German)
- Understanding hemocyanin evolution using molecular and biochemical methods (German)

Fieldworks:

- Water quality surveying, Lower Saxony, Germany, 2022.
- Wild bird observation, bat population monitoring, Lower Saxony, Germany, 2023.

Bachelor thesis:

- How's *Wolbachia* doing? Various *Wolbachia* communities in the female-biased flea beetle *Altica lythri*.
- Supervisor: Prof. Dr. Susanne Dobler, Dr. Kim Rohlfing
- GPA: 4.0

Coursera Courses

Bioinformatics Specialization offered by UC San Diego

- Python Programming, Motif finding, Genome Assembly, Peptide Sequencing, Sequence Alignment

Image and Video Processing: From Mars to Hollywood with a Stop at the Hospital offered by Duke University

Data Science Specialization offered by Johns Hopkins University

- Data Analysis, Reproducible Research, Statistical Inference, Regression Models, Machine Learning

EMPLOYMENT

Student assistant (HiWi)

08/2023 - 04/2024

Institute of Cell and Systems Biology of Animals, Universität Hamburg

Working Group "Molecular Evolutionary Biology" run by Prof. Dr. Susanne Dobler

- Assisted essential works in laboratory research and actively participated laboratory organization.
- Attended the DZG (German Zoological Society) conference in Kassel with a poster contribution.

Contact: Prof. Dr. Susanne Dobler, susanne.dobler@uni-hamburg.de

Laboratory technician

06/2023 - 07/2023

Eurofins BioTesting Service Nord GmbH

- Internship and student job in laboratory qualified for food testing.

- Trained with fast-paced working environment and standardized laboratory procedures, operated ISO 17822 *in vitro* diagnostic tests (nucleic acid amplification-based examination procedures for detection and identification of microbial pathogens) in biosafety level 2 laboratory .

Contact: Gerrit Fabian Bauer, GerritFabianBauer@eurofins.de

CONFERENCE ACTIVITY

Poster contribution

Detecting *Wolbachia* infection with Real-time PCR in female-biased flea beetle *Altica lythri*

5/9/2023 - 8/9/2023

115th Conference of the German Zoological Society

- Attended poster pitch talk session and presented intermediate result of my bachelor thesis with a A0 poster.

TEACHING EXPERIENCE

Animal Physiology

Teaching assistant (HiWi), 2022-2023

Universität Hamburg

- Supported practical courses of bachelor in laboratory with molecular biology experiment (Blood-cell counting, SDS-PAGE, ECG, Enzyme kinetics testing)

Evolutionary Ecology

Teaching assistant (HiWi), 2023

Universität Hamburg

- Supported elective practical courses of bachelor in molecular laboratory (PCR, Gel-electrophoresis, Immunocytochemistry)

PROFESSIONAL SKILLS

Research Skills

- Molecular Biological Tools (PCR, real-time PCR, RT-qPCR, Gel-electrophoresis, SDS-PAGE, Western Blot, Sequencing, Cloning, ICC)
- Bioinformatics analysis and programming (Phylogenetic reconstruction and analysis, Geographic information system Q-GIS, R, Python 3)
- Reproducible and collaborative research workflow (R, Python, Git, Markdown, LaTeX)

Programming and Computing

- Data analysis, Data visualization, Genome assembly, Reproducible research and data management, Image and video analysis, processing and production
- Software competence: RStudio, Python 3, QGIS, SnapGene, Adobe Photoshop, Adobe After Effects, Adobe Animate, Adobe Illustrator, Adobe InDesign, DaVinci Resolve

Language

- Chinese (Native Speaker), English (Professional Proficiency), German (Professional Proficiency), Japanese (Working Proficiency), Spanish (Elementary Competence)

CERTIFICATE AND COMPETENCE

SCUBA Diving

- PADI Open Water, PADI Advanced Open Water, PADI Rescue Diver

PERSONAL ACTIVITIES

Freelancer Photographer

- Concert, conference, wedding, ceremony recording.
- Analog film developing, digitizing and processing.
- Short film production.
- **Working Partners:** Schneider Electric, CATL, CORNEX, OPESS, Biogena, Steinway & Son Hamburg, Elbphilharmonie & Laeiszhalle Hamburg

Diving Experience

15-Day Diving Excursion, 2022, Adriatic Sea, Croatia

- Focused on local marine biodiversity and ecosystem.
- Learned diving experiences, nautical and oceanographical knowledge from professional team members.

Taiwan Diving Center, 2023, Taiwan

- Experienced routine works of marine conservation, and local marine ecosystem monitoring with coral guardians.

REFERENCES

Susanne Dobler

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Kim Rohlfing

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LINKS

GitHub: github.com/zzzhehao

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Social Media: instagram.com/zhehao.hu_