

Thesis projects for bioinformatics students: Bachelor (BA), Master (MA), Research internships (FoPra)				
Working group/Institut (Link)	Range of Topics	BA, MA, FoPra?	Contact (Name, E-Mail)	Notes
Independent Max Planck Research Group " <i>Biosocial Biology, Social Disparities, and Development</i> " / Max Planck Institute for Human Development (https://www.mpib-berlin.mpg.de/research/research-groups/mprg-biosocial)	Applying omics research to social science research on health and education inequality; genome-wide DNA methylation machine learning; genome-wide association studies; polygenic scores	BA, MA, FoPra	raffington@mpib-berlin.mpg.de	Lots of research opportunities
Molecular Ecology (AG Monaghan) Leibniz-IGB and FU BCP https://www.igb-berlin.de/en/profile/michael-t-monaghan	Molecular ecology, environmental genomics, bio-monitoring in lakes and rivers with eDNA	MA, FoPra	m.monaghan@fu-berlin.de	
Bioinformatics Solution Center / Inst. Mathe-Informatik; www.bsc.fu-berlin.de , Sandro Andreotti, Chris Bielow	Sequencing und Proteomik; Qualitätskontrolle von Hochdurchsatzdaten	BA, MA, FoPra, BerPra	info@bsc.fu-berlin.de	
Bioinformatics in Medicine / Zuse Institute Berlin	Machine learning for analysis of omics data; network-based data integration; mathematical modelling	BA, MA, FoPra	conrad@zib.de	
AI in Life Sciences (AG Eils), Digital Health Center, Berlin Institute of Health at Charité, https://www.hidih.org/research/ailslab	Health data, disease risk modeling, treatment recommendation, machine learning (www.seqan.de), algorithms for the analysis of HPLC/MS proteomics data (www.openms.de); other topics are possible; cf. https://wikis.fu-berlin.de/display/abi/BSc+and+MSc+Topics	BA, MA, FoPra	alexandra.friedrich@bih-charite.de	
Algorithmische Bioinformatik (AG Reinert), FU, Institut für Informatik, http://www.mi.fu-berlin.de/en/inf/groups/abi/		BA, MA, FoPra	knut.reinert@fu-berlin.de	
Referat S.3 eScience, Bundesanstalt für Materialforschung und -prüfung www.bam.de/en/pharmazie/faecher/pharmazeutische_chemie/wolber/index.html ; https://drug-design.de	Algorithms and software development for mass spectrometry-based applications (proteomics, metaproteomics, metabolomics, chemistry); research data management; machine learning	BA, MA, FoPra	thilo.muth@bam.de	
Mathematik, https://www.mi.fu-berlin.de/en/math/groups/dibimath/index.html	Eigenschaften von kleinen organischen Molekülen, Data mining & machine learning	BA, MA, FoPra	gerhard.wolber@fu-berlin.de	FU web page
	Mathematical modeling, molecular networks, discrete methods for system and data analysis	BA, MA, FoPra	siebert@mi.fu-berlin.de	
AG Nowick (Human Biology and Primate Evolution): http://www.nowick-lab.info	Comparison of genome and transcriptome data with focus on evolution, brain and gene regulation	BA, MA, FoPra	katja.nowick@fu-berlin.de	
AG Volkamer, in silico Toxicology and Structural Bioinformatics, https://volkamerlab.org/	Method development and application in the field of CADD and risk assessment (usually Python based).	BA, MA, FoPra	andrea.volkamer@charite.de	Currently full supervision capacity reached, please contact us only if you look for sth in mid 2022!

AG Szulcek, In vitro modeling systems of pulmonary diseases	Project on natural language processing in scientific literature.	MA, FoPra	robert.szulcek@charite.de	
AG Konietzschke; Institut für Biometrie und klinische Epidemiologie. www.biometrie-charite.de	Statistical Methods, Resampling Methods, High-Dimensional Data Analysis	MA, FoPra	frank.konietzschke@charite.de	
AG Bockmayr, Mathematics in Life Sciences, http://www.mi.fu-berlin.de/en/math/groups/mathlife/	Computational systems biology, constraint-based and optimisation-based methods for metabolic and regulatory networks	BA, MA, FoPra	Alexander.Bockmayr@fu-berlin.de	
http://www.mi.fu-berlin.de/en/chemie/biochemie/research-groups/stricker-group/index.html	von OMICS Datensätzen aus z.B. RNA-Seq oder Histone profiling Experimenten	MA, Ma	sigmar.stricker@fu-berlin.de	
http://www.mi.fu-berlin.de/en/pharmazie/faecher/pharmazeutische_chemie/wolber/index.html ; https://drug-design.de				
Michael Grünstäudl (PostDoc, prüfungsberechtigt für Bachelor- und Masterarbeiten); https://blogs.fu-berlin.de/gruenstaeudl/	Bioinformatic method development and application in plastid phylogenomics (plastid genome assembly and annotation, phylogenetic inferences, large-scale data mining of DNA sequences)	BA, MA, FoPra	m.gruenstaeudl@fu-berlin.de	
AG Keller, Computational and Theoretical Chemistry, http://www.chemie.fu-berlin.de/keller	Molecular-dynamics simulations, kinetic models	BA, MA, FoPra	bettina.keller@fu-berlin.de	
Institute of Health at Charité, https://www.bihealth.org/en/research/research-group/conrad-lab-intelligent-imaging	single cell sequencing, spatial transcriptomics, high content screening, machine learning	BA, MA, FoPra	christian.conrad@bih-charite.de	
http://www.molgen.mpg.de				
Department of Computational Molecular Biology MPI Molecular	Transcriptional Regulation, Single-cell transcriptomics, Proteomics	BA, MA, FoPra	klimm@molgen.mpg.de	
Bioinformatics Unit (MF1), Robert Koch institute, https://www.rki.de/DE/Content/Forsch/Forschungsmethoden/Bioinformatik/Bioinformatik.html .	Group working on the Statistical and Bioinformatic analysis of sequencing/omics data, with a focus on: * bioinformatics workflow management systems, real-time nanopore sequencing (or real-time pathogen detection) (HoelzerM) * Machine Learning and Statistics, outbreak detection and pathogen evolution (RichardH) * Genomic surveillance of pathogens (FuchsS). cf https://rki-mf1.github.io/projects/	BA, MA, FoPra	{RichardH,Fuchs,HoelzerM}@rki.de	
AG Computational Medicine, BIH@Charité Berlin https://www.bihealth.org/en/research/research-group/computational-medicine	Data-Science for Metabolic and Population Health	BA, MA, FoPra	maik.pietzner@bih-charite.de	