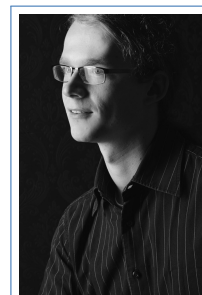


# Felix Kühnl

## Curriculum Vitae

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### Education

- 2013–2016 **Masters of Science in Bioinformatics**, *Leipzig University*.  
With best possible GPA of 1.0 (“very good”).
- 2010–2013 **Bachelor of Science in Computer Science**, *Leipzig University*.  
Minor studies in Biology. With GPA of 1.7 (“good”).

### Master’s Thesis

- Title *The Folding Kinetics of Riboswitches*
- Supervisors Prof. Peter F. Stadler & Dr. Sebastian Will
- Description In this thesis, a tractable model for the folding kinetics of RNA–ligand complexes has been developed. It has been implemented and applied to analyse riboswitches, a class of regulatory RNA elements that is of high interest to synthetic biology. Furthermore, some useful properties of RNA structures without isolated base pairs have been proved.

### Bachelor’s Thesis

- Title *orthoDeprime: A Tool for Heuristic Cograph Editing on Estimated Orthology Graphs*
- Supervisors Prof. Peter F. Stadler & Dr. Maribel Hernández-Rosales
- Description This thesis describes a heuristic approach to the NP-hard problem of cograph editing. It can be shown that the orthology graph of an arbitrary set of genes is a cograph. However, due to errors during the prediction of the orthology relation, this property is often lost in practice. Using the described method on the graph can therefore help to restore the true relation, allowing to easily infer a species tree from the input data.

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## Vocational Experience

- 2015–Present **Research Assistant**, *Bioinformatics, Leipzig University*.  
Activities include:
- research on energy landscapes and riboswitch kinetics
  - design of algorithms
  - development of simulation tools
  - attendance at international meetings
  - supervision of practical courses on bioinformatics
- Jul–Sep 2014 **Research Assistant**, *Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig*.  
Visualization of human brains, software deployment
- 2012–2014 **Teaching Assistant**, *Faculty of Mathematics and Computer Science, Leipzig University*.  
Several positions, including:
- supervision of programming courses (*C, Java*)
  - correction of course work (programming and theoretical computer science)

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## Awards

- 2016–2017 **Postgraduate Scholarship at the University of Leipzig**.  
Scholarship funded by the German Research Foundation (DFG) for research on the recruitment of PRC2 by long non-coding RNAs

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## Computer skills

Programming	C, C++, Java, Perl, R, Bash, SQL
Graphics	GIMP, Inkscape
Typesetting	L <sup>A</sup> T <sub>E</sub> X, LibreOffice
OS	Linux, Microsoft Windows

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## Communication Skills

- Sep 2015 Oral presentation at the *Herbstseminar* meeting of the Chair for Bioinformatics, University of Leipzig, held in Doubice, Czech Republic
- Feb 2016 Oral presentation at the *Winterseminar* meeting of the Institute of Theoretical Biochemistry, Vienna, held in Bled, Slovenia

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## Languages

German	Mother tongue
English	Fluent
Spanish	Basic