

# Sebastian Wilzbach

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## Personal details

Date of birth 1994-07-04 in Kempten, Bavaria, Germany

## Education

- 10/2018 - **Bachelor studies in Computer Science**, Technische Universität München (TUM)
- 10/2016 - **Master studies in Bioinformatics**, Ludwig Maximilian University of Munich and  
04/2018 Technische Universität München (TUM)  
Exmatriculated in 2018
- 08/2015 - **Erasmus scholarship**, University of Helsinki
- 05/2016 Algorithmic Bioinformatics, Algorithms, Data Analytics and Machine Learning  
overall average grade: 1.15/5.0 (A)
- 10/2012 - **Bachelor studies in Bioinformatics**, Ludwig Maximilian University of Munich and  
08/2016 Technische Universität München
- Bachelor thesis: *Improving haplotype assembly runtime by read pruning*
- Informatics subprogram: fundamental and higher Mathematics & Computer Science
  - Biology subprogram: advanced Biology, Chemistry & Biochemistry
  - Combined subprogram: Algorithmic Bioinformatics, High-throughput data mining, Machine Learning
- overall average grade: 2.2/5.0 (B)
- 2011 - 2012 **Early study: Computer Science I + II**, University of Applied Sciences, Kempten  
overall average grade: 1.0/5.0 (A)
- 2004 - 2012 **Abitur (German higher education entrance qualification)**, Allgäu-Gymnasium, Kempten, scientific track  
overall average grade: 1.8/6.0 (A)

## Work experience

- 12/2018 - **Contractor**, *Asyncy*  
StoryScript: Goal-oriented Cloud Native Programming Language for choreographing microservices (Python)
- 08/2018 - **Contractor**, *Plotly*  
Dash.Bio: Interactive Biological Visualization (JS, Python)

- 11/2017 – **Consultant, D Language Foundation**  
09/2018 Supporting the D language and ecosystem
- 11/2016 – **Junior consultant, TNG**  
12/2017 Deep learning in a corporate environment (Python)
- 07/2016 – **MOOC teaching assistant, edX, TUM**  
10/2016 "Developing a web app with the power of Node" (exercises, grading)
- 04/2016 – **Google Summer of Code stipend, D Language Foundation**  
08/2016 Science for D: non-uniform random number generators
- 07/2015 – **Fintech co-founder & consulting, Bonaval, Munich**  
03/2016 First comparison site for pawn credits in Germany (AngularJS, NodeJS)
- 04/2015 – **Predictive analytics student employee, metoda, Munich**  
07/2015 Analysis of historic e-commerce pricing data (Amazon, idealo) (R, Ruby)
- 04/2014 – **Google Summer of Code stipend, BioJavaScript**  
08/2014 Interactive multiple sequence alignment viewer and BioJS.io (CoffeeScript, JavaScript, NodeJS)
- 05/2013 – **Student employee, Rostlab (TUM), Munich**  
08/2013 "The Bioinformatics game" (tbg) for iOS and Android (C++)
- 02/2013 – **IT Consulting internship, Jato GmbH, Munich**  
04/2013 LDAP login system & internal time tracking system (Java)
- 11/2012 – **Software developer student employee, fortiss (An-Institut Technische Universität München), Munich, project: smart energy living lab**
  - Distributed RPC communication via an enterprise message bus (Java, Python)
  - Device manager with data aggregation (Java)
- 08/2011 & **Software developer vacation job, 3S-Smart Software Solutions GmbH, Kempten**  
06/2012
  - 2012: Visualization of the in-house solar power production (PLC)
  - 2011: Internal RFID payment system with stock monitoring (PLC)

## Scientific experience

### Teaching

- 10/2014 – **Protein Prediction II, Teaching assistant**  
03/2015 Department for Bioinformatics and Computational Biology, Technische Universität München

### Publications

- 07/2017 Veli Mäkinen, Valeria Staneva, Alexandru Tomescu, Daniel Valenzuela, **Sebastian Wilzbach** "Interval scheduling maximizing minimum coverage" in *Discrete Applied Mathematics*
- 07/2016 Guy Yachdav, **Sebastian Wilzbach** et al. "MSAViewer: interactive JavaScript visualization of multiple sequence alignments" in *Bioinformatics*
- 07/2015 Guy Yachdav, Tatyana Goldberg, **Sebastian Wilzbach** et al. "Anatomy of BioJS, an open source community for the life sciences" in *Elife*

10/2014 Markus Duchon, Pragma Kirti Gupta, Dagmar Koss, Denis Bytschkow, Bernhard Schätz, and **Sebastian Wilzbach**. "Advancement of a Sensor Aided Smart Grid Node Architecture" in *International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery*

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## Invited talks & workshops

07/2015 **GCC2015**, Norwich, England, BioJS2Galaxy: Automatic Conversion of BioJS Visualisation Components into Galaxy Plugins (talk)

07/2015 **BioJS Conference 2015**, Norwich, England, Web components and BioJS (talk)

03/2015 **VizBi 2015**, Cambridge, MA, United States, Reuse, develop and share biological visualization with BioJS (workshop)

11/2014 **EMBL-EBI industry programme**, Cambridge, England, EMBL-EBI industry workshop on BioJS (workshop)

10/2014 **Swiss-German Galaxy developer day**, Freiburg, Germany, Reusable JavaScript for Life Sciences (talk)

09/2014 **ECCB 2014**, Strasbourg, France, Reuse, develop and share biological visualisation with BioJS (workshop)

08/2014 **TGAC**, Norwich, England, BioJS 2.0: Taking biological visualisation to the next level (talk)

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## Entrepreneurship

07/2015 **Bonaval**, First comparison site for pawn credits in Germany

10/2014 **OpenVis**, Interactive web visualization

01/2012 **Substi**, Substitution schedule app for iOS and Android

07/2010 **Campoweb**, Server hosting & WebCMS configuration

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## Programming skills

Mother lang.	D, Python, (Node)JS/ECMAScript, Java	"C2" level
Stat. typed	C, C++, Go	
Scripting	Bash/Zsh, Perl, Ruby, PHP	
Functional	Scala, Haskell, Clojure	
Statistical	R, GNU Octave	
Databases	SQL, NoSQL	
Frontend	React, Angular, Backbone	

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## OS skills

- o Arch Linux AUR package maintainer (since 2013)
- o Debian/Ubuntu server admin (since 2012)

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## Selected open source contributions

- o Phobos
- o Mir
- o BioJS & Bionode
- o Underscore.js

- Epilogue
- Parallel.js
- Mention-bot
- Sequelize

## Selected hackathons awards

- 04/2017 **Hex**, *Eindhoven, Netherlands*, WehStyle: style or get styled, 1<sup>st</sup> place (overall)
- 11/2016 **Accenture Digital hackathon**, *Prague, Czech Republic*, refood: sharing reusable food leftovers, 3<sup>rd</sup> place (overall)
- 11/2016 **hackaTUM**, *Munich, Germany*, PitchBack: audience attendance observation, 1<sup>st</sup> place (wildtrack)

## Language proficiency

German	Mothertongue	
English	C2	<i>German academic exchange service (DAAD), 2015</i>
Latin	Latinum	<i>Advanced Latin proficiency certificate</i>
Finnish	A1.2	<i>Elementary</i>

## Post-qualification experience

- 2016 – D Munich Meetup organizer
- 2014 – 2017 TUM MINGA mentor (for incoming exchange students)
- 2015 Executive member of MunichACM (Computer Science student club)
- 2014 – 2015 Contributor to TeaTalk (scientific discussions between students and academic professionals)
- 2012 – 2015 Founding member of the Munich humanist university group (HHGM)
- 2013 – 2014 Comenius program assistant (I.E.S. Poeta García Cabrera, La Gomera, Spain)
- 2012 Voluntary worker for the Bavarian Red Cross (ambulance service)
- 2007 – 2012 Multimedia task force leader at Allgäu-Gymnasium Kempten

## Personal interests

- Middle distance running
- Hackathons/codefests
- Bouldering
- Open source philanthropy

Munich, 14 February 2019

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Sebastian Wilzbach