Julian Dominik Stamp

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Experience

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| TNG Technology Consulting GmbH  May 2019 – November 2020 | Software Consultant  Member of the **build management** team for several software projects of an insurance company  Setting up build infrastructure and automation with cloud technologies  **Technologies:** Groovy, Shell, Docker, Git, Maven, Openshift, Cloudfoundry, Jenkins, Nexus |

Education

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| Brown University, USA  2020 – present | PhD Computer Science  **Modules included:** Statistical Inference I, Algorithms CompBio & Bioinfomatics, Bayesian Statistical Methods, Inference in Genomics and Molecular Biology, Foundations Population Genetics, Linear Models, Scientific Communication  **Research Interests:** Statistical Methods for studying nonlinear contributions to trait variance, genetic architecture of complex traits, epistasis and gene by environment interactions  **Advisor:** Lorin Crawford, Daniel Weinreich |
| Ludwig-Maximilians-Universität München, Germany  2016 - 2018 | MSc Physics/Biophysics (GPA 1.29, scale 1.0 - 4.0 with 1.0 highest mark)  **Modules included:** Nonlinear dynamics and pattern formation, stochastic processes in physics and biology, biophysics of systems, biophysics of the cell, advanced solid state physics, advanced quantum mechanics, advanced statistical physics, C-programming  **Master Thesis:** Nonequlibrium Conditions for Molecular Evolution: EDC-based Ligation in Thermal Traps (**graded with** **1.0** , scale 1.0 - 4.0 with 1.0 highest mark)  **Advisor:** Prof. Dieter Braun |
| University Konstanz,  Germany  2012 - 2016 | BSc Physics (GPA 1.5, scale 1.0 - 4.0 with 1.0 highest mark)  **Modules included:** Integrated course physics I-IV (comprises mechanics, hydrodynamics, electrodynamics, thermodynamics, analytical mechanics, optics, special relativity, quantum mechanics, etc. ), beginner laboratory course I-IV, calculus I-III, linear algebra, complex analysis, computer course for mathematicians, solid state physics, statistical mechanics, advanced laboratory course  **Bachelor Thesis:** Comparison between Mechanically Controlled Break Junctions and Scanning Tunneling Microscope-based Break Junctions for Characterizing Single-Molecule Contacts  **Advisor:** Prof. Elke Scheer |

Research Experience

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| Ludwig-Maximilians-Universität München,  Germany  Oct 2017 - Nov 2018 | **Thesis Research** at the Systems Biophysics laboratory of **Prof. Dieter Braun**  **Topic:** DNA ligation with EDC in thermal traps   * Comsol Simulations of thermal traps, LabView Simulations of random motion of particles in flow fields and temperature gradients * Experimental Realization of simulations * HPLC-MS, Bioanalyzer, UV-spectroscopy |
| Max Planck Institute for Neurobiology, Munich  March 2017 – Dec 2017 | **Research Assistant** at department of **Prof. Winfried Denk** under supervision of **Dr. Shawn Mikula**  **Topic:** image registration and tile stitching of anatomical EM images   * Translating existing code from Matlab to Python, literature review of image registration methods |
| Columbia University, USA  May 2016 – Sept 2016 | **Visiting Scholar** at the Molecular Electronics laboratory of **Dr. Latha Venkataraman**  **Topic:** single-molecule junction characterization with MCBJ and STM-BJ   * Optimization of measurement technology and data acquisition for the MCBJ * Data acquisition with MCBJ and STM-BJ * Coding and conducting the analysis of data of single-molecule break junctions with IGOR Pro |
| Stony Brook University, USA  Dec 2014 – May 2015 | **Research assistant** at the Cognitive Neuroscience laboratory of **Dr. Hoi-Chung Leung**  **Topic:** spatial working memory maintenance   * Coded and conducted the analysis of behavioural data in MATLAB, conducted experiments with human subjects * Poster presentation at the 2015 URECA Undergraduate Research Symposium: **Stamp JD\***, Lee AS\*, Manza P, O’Rawe J, Leung HC. (2015). Exploring the neurochemical basis of human spatial working memory maintenance with eye blink activity. *2015 URECA Undergraduate Research Symposium*, Stony Brook, NY, April 29. *\*Authors contributed equally to this work.* |

Exchange Programs

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| Universidad de Granada, Spain  Sep 2018 - Jan 2019 | **Modules included**: Numerical Analysis of PDE and Approximation, Colloids and Interfaces |
| Stony Brook University, USA  2014 - 2015 | **Modules included:** applied real analysis, data analysis, nuclear and particle physics, logic and critical reasoning, moral reasoning  **Research methods included:** Eye Link software, MATLAB |

Publications

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| Edeleva, E., Salditt, A., **Stamp, J.**, Schwintek, P., Boekhoven, J., & Braun, D. (2019). Continuous nonenzymatic cross-replication of DNA strands with in situ activated DNA oligonucleotides. *Chemical Science*. |

Grants and Conferences

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| Erasmus Stipend | Ludwig-Maximilians-Universität, 2018  Grant for the exchange with Universidad de Granada, funded by the European Union |
| Molecular Origins of Life CAS Conference | Munich, Oct. 2018  P. Schwintek, **J. Stamp**, C. Mast, and Dieter Braun\* (2018). Monitoring the accumulation of molecules inside hydrothermal chambers via UV-Spectroscopy. |
| Neurostorm Hackathon | Woods Hole, Massachusets, Oct. 2017  Conference on the **processing of large scale neuroimaging data**. Participation sponsored by the Grossman Institute for Neuroscience (University of Chicago), travel sponsored by the Max-Planck Institute of Neurobiology, Munich |
| PROMOS Stipend | University of Konstanz, 2016  Grant for conducting **thesis research at Columbia University**, funded by the DAAD and sponsored by Bundesministerium für Bildung und Forschung |

Community Service

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| Fundación Alalay, Bolivia  June 2015 –  July 2015 | Working for the Fundación Alalay in La Paz, Bolivia  Working in an orphanage, working with street children, problem solving, mediation, communication with administrative staff  Self organised community service |
| École Perceval, France  Sept 2011 –  July 2012 | Educational assistant at École Perceval in Paris, France  Assisting the educators with the day to day work, teamwork, problem solving, mediation, communication with parents or guardians  Federal Volunteer Community Service, sponsored by Freunde der Erziehungskunst Rudolf Steiners |

IT Skills and Languages

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| Languages: | Proficient in **German** and **English**, fluent in **French**, good knowledge of **Spanish** |
| Technologies: | Python, Groovy, Shell, Docker, Git, LaTeX, Maven, Openshift, Cloudfoundry, Jenkins, Nexus, MATLAB, Comsol, Mathematica, IGOR Pro, C++, LabView |