# Fabio J. Fehr
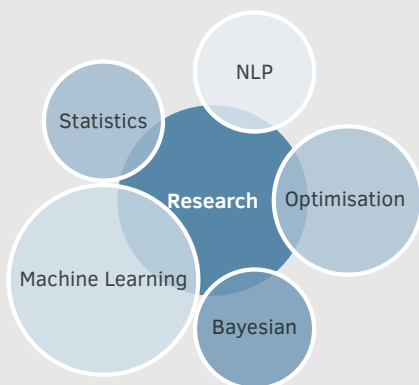
Research assistant at Idiap,
Ph.D. student at EPFL

- May 23, 1996,
  Swiss + South African
- fabio.fehr@idiap.com
- Github Profile
- LinkedIn Profile

## About me

I am an individual who is enthusiastic, reliable and tenacious. I take a statistical approach to life. Given a 1% chance of success, I am prepared to try at least 100 times. My research interests are in machine learning, statistics and natural language processing. I thrive on regular exercise and enjoy outdoor activities such as hiking, skiing and surfing. My hobbies include: reading, playing classical music and growing bonsai.

## Interests



NLP · Statistics · Research · Optimisation · Machine Learning · Bayesian

## Languages

| Language | Level |
|----------|-------|
| English | ●●●●● |
| Afrikaans | ●●●○○ |
| French | ●●○○○ |
| German | ●○○○○ |

## Working

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|---|---|---|
| 2021-2024 | **Research Assistant** | Idiap |
| | Working in the Natural Language Understaning group at Idiap. | |
| 2018 | **Intern Machine Learning Engineer** | DataProphet |
| | Implementing transfer learning for RNN and CNN models for financial time-series data. | |
| 2017 - 2018 | **Intern Data Scientist** | Eighty20 |
| | I worked on a team project for the water crisis in Cape Town. Thereafter, working with Eighty20's Big Data Portal in SQL. | |

## Education

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|---|---|---|
| 2021 – 2024 | **Doctor of Philosophy in Electrical Engineering** | EPFL |
| | Working in the intersection of machine learning and natural language processing, with an emphasis on representation learning for the meaning of language, attention-based deep learning models, and structured prediction. | |
| | **PhD Research** | EPFL |
| | Currently working on combining Bayesian non-parametrics methods with attention-based deep learning language models. | |
| 2019 – 2020 | **Masters in Advanced Analytics (Full bursary)** | UCT |
| | Statistics specialisation. A two year masters degree including coursework and dissertation. Awarded SASA-NRF grant funding. | |
| | **Master Thesis** | UCT |
| | A comprehensive comparison study of Gaussian processes and variational autoencoders for statistical shape modelling of 3D meshes. | |
| 2015 – 2018 | **Bachelors of Business Science in Analytics** | UCT |
| | A diverse degree with a focus on Statistics, Mathematics and Computer Science. Honours year specialisation in statistics. | |
| | **Honours Thesis (Distinction)** | UCT |
| | Text Content Classification on News Articles: Using natural language processing and machine learning techniques to classify text articles. This was presented at the South African Statistical Association (SASA) conference in 2019. | |

## Teaching

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|---|---|---|
| 2021-2024 | **Teaching Assistant** | EPFL |
| | Working as a TA for machine learning and NLP courses at EPFL. | |
| 2020-2021 | **Engagement Tutor** | GetSmarter |
| | Tutor for in Business Analytics (UCT) and Machine Learning (LSE). | |
| 2019 – 2020 | **Subject Matter Expert** | GetSmarter |
| | Building two online courses: Business Analytics (UCT) and Machine Learning (LSE). | |
| 2017 – 2020 | **Head Tutor: Statistics** | UCT |
| | Managing, coordination, tutoring and assistant lecturing. | |

## Community

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|---|---|---|
| 2013 – 2019 | **Lifesaving Squad Leader** | LSLC |
| | Llandudno Surf Lifesaving Club, leading a squad of 25 young lifeguards. 100 hours p.a community service. | |
| 2016 – 2019 | **Surf Club Chairman** | UCT |
| | Management of a team, organisation of events, working with brands. Community outreach and adaptive surfing. 25 hours p.a community service. Club of the year and transformation trophy for 2019. | |

## References

| | |
|---|---|
| **Dr James Henderson** | Idiap |
| Ph.D. supervisor - james.henderson@idiap.ch | |
| **Associate Professor Francesca Little** | UCT |
| Head of statistics department - francesca.little@uct.ac.za | |
| **Dr Sheetal Silal** | UCT |
| Lecturer and mentor - sheetal.silal@uct.ac.za | |
| **Associate Professor Tinashe Mutsvangwa** | UCT |
| MSc. supervisor - tinashe.mutsvangwa@uct.ac.za | |