

# Felix Teufel

PHD STUDENT · MACHINE LEARNING

Copenhagen, Denmark

 fteufel |  felixteufel

## Education

### University of Copenhagen

PH.D. MACHINE LEARNING

- Advisor: Ole Winther

Copenhagen, Denmark

Feb. 2022 - ongoing

### ETH Zürich

M.Sc. BIOTECHNOLOGY

- **GPA: 5.76/6 — Graduated with distinction**
- **Lab Assistant** in the Bioprocess Laboratory (Sven Panke group)

Basel, Switzerland

Sep. 2018 - Jun 2021

### University of Natural Resources and Life Sciences (BOKU) Vienna

B.Sc. FOOD SCIENCE AND BIOTECHNOLOGY

- **GPA: 1.6/5 (1 = best) — Graduated with distinction**
- **Teaching Assistant** for Biochemistry
- **Virginia Tech**, Blacksburg, VA, USA - represented Austria in a competition for student-founded startups (Summer 2018)

Vienna, Austria

Oct. 2015 - May 2018

## Work Experience

### Novo Nordisk A/S

INDUSTRIAL PHD STUDENT

- AI & Digital Research

Måløv, Denmark

Jan. 2022 - ongoing

### F. Hoffmann - La Roche AG

INTERN IN PHARMA TECHNICAL OPERATIONS

- Natural Language Processing of biopharmaceutical manufacturing data
- Developed productivity tools for Google Suite (Google Apps Script)

Basel, Switzerland

Aug. 2019 - Jun. 2020

### 11er Nahrungsmittel GmbH

SUMMER INTERN IN RESEARCH AND DEVELOPMENT

- Developed chemometric models (PLS regression) for Near Infrared Spectrometry (NIR) analytics of foods

Frastanz, Austria

Jun. 2015 - Sep. 2017

## Research Experience

### PROJECTS

#### Predicting stem cell states from single cell transcriptomics data

NEWMAN LAB, DEPARTMENT OF BIOMEDICAL DATA SCIENCE, STANFORD UNIVERSITY

- Developing models to predict stem cell states reliably in multiple tissues

Stanford, CA, USA (remote)

Mar. 2021 - ongoing

#### Multi-task Gaussian Process Adapters for irregularly-sampled time series classification

MACHINE LEARNING & COMPUTATIONAL BIOLOGY LAB, ETH ZÜRICH

- Investigated model biases and training strategies of a multi-task Gaussian Process - Temporal Convolutional Neural Network model for sepsis prediction in intensive care medicine

Basel, Switzerland

Oct. 2019 - May 2020

#### Electrochemical Acrylamide Biosensors

LUDWIG LAB, BOKU VIENNA

- Investigated the reproducibility of previously published biosensor designs for acrylamide detection
- Developed a GUI for biosensor readout

Vienna, Austria

Jun. 2018 - Aug. 2018

### PUBLICATIONS

#### Identifying endogenous peptide receptors by combining structure and transmembrane topology prediction

NEURIPS WORKSHOP ON MACHINE LEARNING IN STRUCTURAL BIOLOGY

F. Teufel, J. C. Refsgaard, M. A. Kasimova, C.T. Madsen, C. Stahlhut, M. Grønborg, O. Winther, D. Madsen

2022

## Combining mass spectrometry and machine learning to discover bioactive peptides

NATURE COMMUNICATIONS

2022

C.T. Madsen, J. C. Refsgaard, F. Teufel et al.

## SignalP 6.0 predicts all five types of signal peptides using protein language models

NATURE BIOTECHNOLOGY

2022

F. Teufel, J.J. A. Armenteros, A. R. Johansen, M. H. Gíslason, S. I. Pihl, K. D. Tsigos, O. Winther, S. Brunak, G. v. Heijne, H. Nielsen

## Impact of pulsed electric field (PEF) pretreatment on process performance of industrial French fries production

JOURNAL OF FOOD ENGINEERING VOLUME 235, OCTOBER 2018, PAGES 16-22

2018

T. Fauster, D. Schlossnikl, F. Rath, R. Ostermeier, F. Teufel, S. Toepfl, H. Jaeger

## Reviews

2023	<b>Nature Biotechnology</b> , Nature Publishing Group	Reviewer
2022	<b>Bioinformatics</b> , Oxford University Press	Reviewer
2022	<b>ICLR 2023</b> , International Conference on Learning Representations	Reviewer
2022	<b>PeerJ</b> ,	Reviewer
2022	<b>Scientific Reports</b> , Nature Publishing Group	Reviewer
2021	<b>Cell Reports</b> , Cell Press	Assisted Review
2021	<b>iScience</b> , Cell Press	Assisted Review
2020	<b>ICLR 2021</b> , International Conference on Learning Representations	Assisted Review
2020	<b>AAAI 2021</b> , Association for the Advancement of Artificial Intelligence	Assisted Review

## Honors & Awards

### COMPETITIONS

2020	<b>Highlight Project for Economic Impact</b> , VersusVirus Hackathon	Zürich, Switzerland
2019	<b>First Place</b> , Zurich Case Competition 2019	Zürich, Switzerland
2018	<b>Finalist</b> , Virginia Tech Global Entrepreneur Challenge 2018	Blacksburg, VA, USA
2018	<b>Crowd Champion</b> , Entrepreneurship Avenue Pitch Competition	Vienna, Austria

### SCHOLARSHIPS

2015-2018	<b>Merit-based Scholarship</b> , BOKU Vienna	Vienna, Austria
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## Extracurricular Activities

### PhD and Postdoc Fellowship Committee of Novo Nordisk

Copenhagen, Denmark

COMITTEE MEMBER

Nov. 2022 - ongoing

- Organize workshops and events for ~80 PhD students and postdocs in the organization

### Biotechnology Students Association of ETH Zürich

Basel, Switzerland

VICE PRESIDENT

Feb. 2019 - Sep. 2020

- Responsible for industry relations
- Student delegate in the appointment committee for new professorships
- Representative in department commissions

### Graduate Consulting Club of ETH Zürich

Zürich, Switzerland

TEAM LEADER

Mar. 2019 - May 2021

- Led a team of 5 student consultants on a market positioning project
- Consulted a computer vision / OCR startup on their market entry strategy in Switzerland

## Skills

<b>Languages</b>	German/Swiss German (Native), English (C2), Spanish (B2), French (B1)
<b>Programming Languages</b>	Python, R, SQL, Google Apps Script
<b>Tools</b>	Linux, Google Cloud Platform, Git, Github
<b>Analytical Techniques</b>	Near Infrared Spectrometry, HPLC, Transcriptomics (Illumina), Differential Scanning Calorimetry, Voltammetry
<b>Wet Lab</b>	Microbiology, Cell culture, Cloning, Protein expression and purification (lab scale and pilot scale)