

Tim Kräuter

SENIOR SOFTWARE ENGINEER · PH.D. CANDIDATE · MASTER OF SCIENCE

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Experience

Microsoft

SENIOR SOFTWARE ENGINEER

Oslo, Norway

Sept. 2025 - Present

- I am working on planet-scale backend M365 services using **C#** that impact millions of people worldwide that use OneDrive, Outlook, and similar M365 applications.

Microsoft

SOFTWARE ENGINEER II

Oslo, Norway

Nov. 2024 - Sept. 2025

Western Norway University of Applied Sciences

PH.D. CANDIDATE IN SOFTWARE ENGINEERING

Bergen, Norway

Oct. 2020 - Nov. 2024

- During my Ph.D. I developed many tools, mainly using **Java**, **JavaScript**, and **Rust**, as you can see in the projects below.
- I contributed to open-source projects in the **bpmn-js** ecosystem, such as *bpmn-lint*, *bpmn-js-token-simulation* and *diagram-js*.
- I was a lecturer and teaching assistant in a course about **Android development** and **Advanced Software Technologies**, i.e., system integration using web services, shared databases and messaging. The programming languages used were **Java** (back-end) and **JavaScript** (front-end).

SET GmbH

SOFTWARE ENGINEER

Hanover, Germany

Oct. 2018 - Oct. 2020

- I was part of a team **redesigning** the company's old production management system in **Java** that is vital to ensure correct physical mail production of thousands of letters per day. Before that, we implemented an Android app for one of our customers as a hybrid web-app.

Education

Ph.D. in Computer Science (anticipated completion September 2025)

WESTERN NORWAY UNIVERSITY OF APPLIED SCIENCES

Bergen, Norway

Oct. 2020 - Present

- I am working as a Ph.D. student in model-driven software engineering. I research executable models, such as process models and state machines, to find control-flow errors or inconsistencies. As a result, one can find and fix errors early during development, preventing potential significant costs later in the development process.

Master of Science in Information Engineering

FHDW HANOVER

Hanover, Germany

Oct. 2018 - Apr. 2020

- GPA: 4.0/4.0 (**Grade A**), studying part-time while working full-time as a Software Engineer at SET GmbH.
- Thesis: Development of semantics for the execution of production processes for the production management of the SET GmbH.

Bachelor of Science in Business Computing

FHDW HANOVER

Hanover, Germany

Oct. 2015 - Oct. 2018

- GPA: 3.7/4.0 (**Grade A**), studying while working at VHV-Group.
- Thesis: Developing a framework for the automated testing of BPMN processes in the VHV.

Skills

Languages

German (native), English (fluent), Norwegian (fluent), French (semi-fluent)

Programming

C#, Java (Spring, Gradle), Typescript & JavaScript (Angular, Ionic, HTML, CSS, bpmn-js), Rust (axum, tokio)

Programming Concepts

Version Control, Concurrency, OOP, CI/CD (GitHub Actions, Jenkins), Containerization (Azure, GCloud)

Projects

BPMN Analyzer 2.0

RESEARCH PROJECT

Bergen, Norway

Nov. 2023 - PRESENT

- I implemented an **analyzer** in **Rust** to automatically **find, display and fix control-flow errors** in a BPMN model by exploring all possible states.

Visual Debugger

RESEARCH PROJECT

Bergen, Norway

May. 2021 - PRESENT

- I developed an **IntelliJ IDEA plugin** which **visualizes the variables during debugging** as an object diagram which has over **10.000 downloads**.

Smart CoP

PERSONAL PROJECT

Hanover, Germany

Dec. 2019 - PRESENT

- I created an **Android app** and a progressive web app for gymnastics, which automatically calculates the difficulty score for gymnastic routines.