

Tim Kräuter

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

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Education

Ph.D. in Computer Science (anticipated completion September 2024)

Bergen, Norway

WESTERN NORWAY UNIVERSITY OF APPLIED SCIENCES

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

Hanover, Germany

FHDW HANOVER

Oct. 2018 - Apr. 2020

- GPA: 4.0/4.0, Grade A
- Studying while working as a Software Engineer at SET GmbH.
- Thesis: Entwicklung einer Semantik zur Ausführung von Produktionsabläufen für das Produktionsmanagement der SET GmbH (Development of semantics for the execution of production processes for the production management of the SET GmbH).

Bachelor of Science in Business Computing

Hanover, Germany

FHDW HANOVER

Oct. 2015 - Oct. 2018

- GPA: 3.7/4.0, Grade A
- Studying while working at VHV-Group.
- Thesis: Konzeption eines Frameworks zum automatisierten Testen von BPMN-Prozessen in der VHV (Conception of a framework for the automated testing of BPMN processes in the VHV).

Skills

Languages

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

Programming

Java (Gradle, Maven, Spring), Typescript & JavaScript (Angular, Ionic, HTML, CSS, diagram-js, bpmn-js), Rust

Programming Concepts

Version Control (Git, SVN), CI/CD (Jenkins, GitHub Actions), Agile Development, Test-Driven Development

Experience

SET GmbH

Hanover, Germany

SOFTWARE ENGINEER

Oct. 2018 - Oct. 2020

- I was part of a team **redesigning** the company's current production management system in **Java**. Before that, we implemented an Android app for one of our customers as a hybrid app based on web technologies. The app is a vital part of the production processes implemented by the production management system.

Projects

Rust BPMN Analyzer

Bergen, Norway

RESEARCH PROJECT

Nov. 2023 - PRESENT

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

Visual Debugger

Bergen, Norway

RESEARCH PROJECT

May. 2021 - PRESENT

- I developed an **IntelliJ IDEA plugin** which **visualizes the variables during debugging** as an object diagram which has over **9000 downloads**.

Smart CoP

Hanover, Germany

PERSONAL PROJECT

Dec. 2019 - PRESENT

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

Hobbies & Interests

Gymnastics

Hanover and Bergen

2004 - PRESENT

- Gymnastics is my key to balance out the mostly cognitive work. I train at least 2-3 times weekly for roughly two hours.
- In my youth, I became a regional champion in Lower Saxony multiple times in the individual competition and as a team. In 2010, I achieved 7th place in the German all-around championships, combining gymnastics and athletics.