

Tassilo Tanneberger

TUD Dresden University of Technology
Faculty of Computer Science
Chair of Compiler Construction
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Research Interests

Domain Specific Languages (DSLs), Distributed Systems, Embedded Systems, Scheduling Theory, RTOS, Deterministic Concurrency.

Education

- 2021 - 2026 Study of Computer Science (Diploma Dipl.-Inf.)
TUD Dresden University of Technology
- 5/2021 Grammerschool with Grade 1.7

Professional Experience

- 9/2024 - 4/2025 Visiting Research Scholar at UC Berkeley
supervised by Edward A. Lee
- 2023 - now Co-founder and Member of Board of Directors
DD-IX Dresden Internet Exchange e.V.
- 11/2021 - now Research Student at the Chair for Compiler Construction,
TUD Dresden University of Technology
- 4/2021 - 10/2021 Engineer working on Tooling for Industrial Robots
Society for the Advancement of Applied Computer Science (GFaI)

Open Source Projects

- 2022 TLMS - Transit Live Mapping Solutions
*Reverse engineering of the radio protocol used for controlling traffic lights in Germany.
Design and implementation of a platform that shows live positions of trams and buses based on this data. <https://map.tlm.solutions>*
- 2021 Lingua-Franca (LF) - a polyglot coordination language for reactive, concurrent, and time-sensitive applications.
Optimization of the C++ runtime environment, development of a package manager and built tool for the LF ecosystem. <https://lf-lang.org>

Extracurricular Activities

- 11/2023 - now Task-Force for the Strategic Development of the Faculty
Faculty of Computer Science, TUD Dresden University of Technology
- 11/2022 - now Member of the Faculty Council
Faculty of Computer Science, TUD Dresden University of Technology

Publications

- [Lin et al.(2024a)] Shaokai Lin, Erling Jellum, Mirco Theile, Tassilo Tanneberger, Binqi Sun, Chadlia Jerad, Ruomu Xu, Guangyu Feng, Christian Menard, Marten Lohstroh, Jeronimo Castrillon, Sanjit Seshia, and Edward Lee. 2024a. PretVM: Predictable, Efficient Virtual Machine for Real-Time Concurrency. *arXiv:2406.06253* [eess.SY]
- [Lin et al.(2024b)] Shaokai Lin, Tassilo Tanneberger, Jiahong Bi, Guangyu Feng, Ruomu Xu, Julian Robledo, Robert Khasanov, and Jeronimo Castrillon. 2024b. Navigating Time and Energy Trade-offs in Reactive Heterogeneous Systems. *IEEE Embedded Systems Letters, special issue on Time-Centric Reactive Software (TCRS, ESWeek 2024)* (Oct. 2024), 4 pages. <https://doi.org/10.1109/LES.2024.3469278>
- [Menard et al.(2023)] Christian Menard, Marten Lohstroh, Soroush Bateni, Matthew Chorlian, Arthur Deng, Peter Donovan, Clément Fournier, Shaokai Lin, Felix Suchert, Tassilo Tanneberger, Hokeun Kim, Jeronimo Castrillon, and Edward A. Lee. 2023. High-performance Deterministic Concurrency Using Lingua Franca. *ACM Trans. Archit. Code Optim.* 20, 4, Article 48 (oct 2023), 29 pages. <https://doi.org/10.1145/3617687>