THOMAS PANI

Software ⏐ Liminality ⏐ Bricolage

I work on complex problems at the boundary of systems and technologies. Comfortable with ambiguity, I choose to address challenging tasks with attention to detail, creativity, an emphasis on collaboration and excellent communication.

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EXPERIENCE
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Research Engineer   02/2022 – 12/2023
Informal Systems   Vienna, AT

- Collaborated on development of the open-source specification language Quint, tooling support for Quint, and the Apalache model checker for Quint and TLA+.
- Lead design and development of Apalache Cloud, a cloud-based parallel batch execution engine, leading to 10x speedup on protocol verification tasks.
- Contributed to audits and other security-focused efforts in the Cosmos blockchain ecosystem.

Doctoral Researcher   02/2014 – 08/2021
TU Wien & Wolfgang Pauli Institute   Vienna, AT

- Researched, designed and implementated automated verification techniques for concurrent shared-memory software.
- Developed *Verifolio*, a machine learning-enabled portfolio software verifier.
- Taught and assisted courses on programming languages, formal methods, software verification, information design.

PhD SWE Intern   05/2019 – 08/2019
Google Research   Mountain View, CA, USA

- Contributed to a Python library for authoring, executing, and testing complex machine-learning pipelines.
- Authored a pipeline for large-scale on-device evaluations for one of Google's mobile ML models.

PhD SWE Intern   05/2018 – 08/2018
Google Cloud   Sunnyvale, CA, USA

- Developed a tool for systematic inconsistency detection in large-scale machine health data, using formal methods.

Research & Teaching Assistant   10/2009 – 01/2014
TU Wien   Vienna, AT

- Created *Sloopy*, a data-flow analysis for heuristically predicting hardness of automated program analysis tasks.
- Teaching assistant for object-oriented programming: I designed exercises and supervised student groups.

Full résumé at linkedin.com/in/thpani/

EDUCATION
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Dr.   Computer Science
TU Wien, Austria   12/2021

Dipl.-Ing.   Computer Science
TU Wien, Austria   01/2014

OTHER ACTIVITIES
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Vienna Science Ball
Member of the organizing committee

Verein *Conscious Brothers*
Secretary, Founding member

FURTHER TRAINING
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LEGO® SERIOUS PLAY® Facilitator Training   06/2023
Association of Master Trainers in the LEGO® SERIOUS PLAY® Method

Patterns for Self-Organizing Teams
The Hum (online)   12/2022

Coaching as a Management Tool
Gabriele Fischer   02/2022

Voice & Body Language Skills
Kate Montague   06/2021

LANGUAGES
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Language	Level	
German	Native	● ● ● ● ●
English	Proficient	● ● ● ● ○
Spanish	Beginner	● ○ ○ ○ ○