

DANIEL TISCHNER

Software Engineer



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/in/daniel-tischner



ZabuzaW



241 1243/Zabuza
3,288 Rep. • 12 • 31

Skills

Overview



Programming

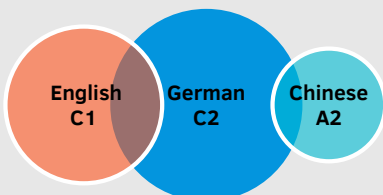
0 LOC —————> 2 600 000 LOC

Java

PHP • SQL • HTML • JS • CSS

C • C++ • C# • Python

Languages



Education

2016 - Present **M. Sc., Computer Science**

[University of Freiburg, Germany](#)

2012 - 2016 **B. Sc., Computer Science (GPA: 1.9)**

[University of Freiburg, Germany](#)

Experience

Oct 2016 - Present **Tutor**

[University of Freiburg, Germany](#)

- Assisting students understanding the contents of courses, organization of weekly meetings
- Course *Information Retrieval* - Students study, create and optimize typical functionalities of modern search engines
- Course *Algorithms and data structures* - Students learn all kind of typical data structures and learn how to analyze algorithms
- Course *System Design Project* - Students need to build and program a robot that is able to fulfil several given tasks, organization of a competition

Nov 2008 - Present **Administrator & Content Creator**

[FreewarWiki, Online](#)

- Development of automated bots and scripts that execute recurring tasks, database management, creation of scripted templates to assist inexperienced users in content creation
- Extensive documentation of game elements and content
- Inspection, correction and improvement of contributions

Nov 2014 - Dec 2015 **Board & Webadmin**

[Gruppe W, Online](#)

- Web development, performance improvement, development of automated web-integrated management software to ease workflow of all members
- Human resource management, project management, planning and giving conferences, mediator
- Development of modifications for ArMA 3, creation of 2D artwork and video editing

Mar 2007 - Jul 2012 **Lead Programmer & Artist**

[Tales of Freewar Team, Germany](#)

- Programming a RPG using the game framework RM2k3, responsible for game logic, implementing story, levels, conversations and battle logic
- Creation of 2D Art and sound editing, design and draft of maps

Awards

Jan 2017 **SV-COMP 2017: Gold in Overall**

[ETAPS/SV-COMP](#)

- The competition compares state-of-the-art tools for software verification with respect to effectiveness and efficiency. The competition consists of two phases: a training phase and an evaluation phase.

Oct 2016 **RERS Challenge 2016: Gold in Overall**

[RERS / ISO^{LA}'16](#)

- The RERS Challenge provides a wealth of problems of increasing complexity, the more involved of which will probably be beyond any individual state-of-the-art method or tool. Characteristic for RERS is its wide scope, which addresses not only source code analyzers, but also (model-based) testers and (test-based) modelers, and in particular Free stylers.

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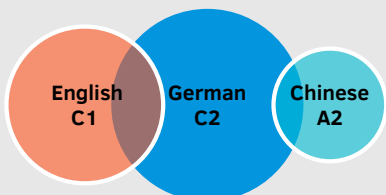
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Publications & Preprints

Mar 2017

Minimization of Visibly Pushdown Automata Using Partial Max-SAT

[TACAS 2017/Springer](#)

Mar 2016

Minimization of Büchi Automata using Fair Simulation

[Preprint arXiv](#)

Projects

Dez 2015 -
Present

ULTIMATE

program-analysis, model-checking, reachability, termination

- Development, implementation, analysis and benchmarking of algorithms to generate random finite word, infinite word, nested word and tree automata (FA, NWA, TA) and also algorithms to minimize them

Apr 2016 -
Present

Sparkle

api, selenium, mmorpg

- Creation of a robust Selenium driven API for a browser embedded MMORPG which uses web-crawling mechanisms

Jun 2016 -
Apr 2017

Mem-Eater-Bug

jna, memory-manipulation, code-injection, windows-api

- Familiarization with security technologies and reverse engineering
- Providing an API which is capable of hooking onto other processes in order to provide memory manipulation methods and the possibility to inject foreign code

Apr 2014 -
Feb 2015

Antigen

game, real-time-strategy, game-design, scrum

- In a team of 5 develop a strategy game from scratch using Scrum as software development managing framework
- Draft and design of an idea for a real time strategy game, creation of a detailed game design document
- Implementation of the game, primarily its logic and fast collision detection solutions

May 2017 -
Aug 2017

TreeFlood

parallel-computing, shared-memory, graph-algorithms, exploration

- Study and implementation of an algorithm which distributedly explores unknown tree graphs
- Creation of a demo GUI that step wise shows how the algorithm works, present the algorithm in a conference

May 2017 -
Jul 2017

Parbot

chatbot, selenium, api, service

- Development of a robust chatbot service which is able to recover from errors
- Implementation of a robust client which uses the chatbot service to automatically interact with users of a browser embedded MMORPG