

Christopher Schnick

SOFTWARE ENGINEER

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Summary

Software engineer experienced in the Java ecosystem and desktop application development. Passionate about designing innovative solutions for end users and learning new technologies and tools when needed.

Education

University of Stuttgart

MASTER OF SCIENCE IN COMPUTER SCIENCE

Stuttgart, Germany

Oct 2019 - Apr 2022

University of Stuttgart

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Stuttgart, Germany

Oct 2016 - Oct 2019

Experience

University of Stuttgart

RESEARCH ASSISTANT (PART TIME)

Stuttgart, Germany

Oct 2020 - Apr 2021

- Maintained a big scientific simulation C++ library that was used internally by researchers to perform large-scale simulations on the university's clusters and supercomputers.
- Experimented with new scientific approaches to high dimensional function approximation and regression with sparse grids in conjunction with my master's thesis.
- Architected and implemented a separate build workflow for an MSVC++ build on Windows for the previous Linux-only library project that is now used by several external customers and researchers.

Projects

XPipe

Apr 2022 - Present

- A remote file browser written in Java that utilizes an entirely new connection concept and is intended to be used by professionals.
- Utilization of the bleeding-edge GraalVM ahead of time native image compilation for performance-critical components.
- Creation and implementation of a robust security concept to handle sensitive information in security-critical contexts.
- Setup of a complex CI/CD pipeline for quality assurance and distribution and updates of multiple versions across multiple platforms.
- Management of a complex multi-project Gradle build with many interconnected components and plugins.
- Conceptualization and implementation of an user-friendly interface and workflow with JavaFX.

Pdx-Unlimiter

Jan 2020 - Present

- A graphical savegame manager and editor written in Java for players of grand strategy games from Paradox Interactive.
- Implementation of highly efficient data parser that must handle hundreds megabytes of data with a minimal processor and memory footprint.
- Distribution and integration for all operating systems, automatic CI/CD pipelines for distribution, plus the handling of automatic updates.
- Conceptualization and implementation of an user-friendly interface and workflow for the application with JavaFX.

PDX Tools

Oct 2020 - Present

- A web-based savegame viewer and leaderboard for the game Europa Universalis 4.
- Moved entire rendering pipeline of a map visualization from the CPU to the GPU using WebGL2.
- Achieved rendering speed increases of more than 100x compared to the old renderer.
- Integrated rendering logic into the Typescript-based website source.

Skills

Languages Java, C++, Python, HTML/CSS, Typescript, WebGL, SQL

Java Gradle, Maven, JPMS, JavaFX, GraalVM AOT, JDBC, Jackson

Other Docker, Kubernetes, Amazon Web Services (AWS), GitHub Actions, CI / CD