

# Christopher Schnick

SOFTWARE ENGINEER

+49 1511 8145727 | crschnick@xpipe.io | 🏠 crschnick.com | <https://github.com/crschnick> | <https://www.linkedin.com/in/christopher-schnick-0a13a0271/>

## 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 - Oct 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

Oct 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