

Michael
Boschwitz

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Education

Software Engineering
and Creative Design. BIS

Japanese Studies Minor

University of Minnesota
Minneapolis, MN, USA

Languages + Skills

Natively fluent:

- C, C++, C#, Java, Python,
- HTML, JS, CSS, Bootstrap
- Unity, Unreal, Git/Perforce
- (Plus, I make good coffee!)

Con conversationally fluent:

- PostgreSQL, SQL, Lua
- Kotlin, Swift, LaTeX
- Japanese

Tourist:

- React.js, Next.js, Ruby,
- Rust, x86, Go, Scala, R

Activities

Intramural Volleyball

Jazz Band Drummer

Game Jams

Fighting Game Club

Ask Me About

Studying abroad in *Kyoto*

Some of my favorite *Movies*

Almost anything *Musical*

My love for *Games/Technology*

Work Experience

Software Engineer (Gameplay)

Avalon Corp. | June – Dec. 2024

- ◆ Architected a scalable, modular framework for character abilities and interaction logic, enabling rapid iteration with simple tools and long-term maintainability.
- ◆ Refactored the animation pipeline, implementing data-oriented design principles to enhance performance, scalability, and support large-scale multiplayer sessions.
- ◆ Engineered core gameplay subsystems, including input buffering, animation canceling, and the combo system and data structures for dynamic user inputs.

Teacher Assistant

University of Minnesota | Fall 2022

- ◆ Provided technical guidance on Virtual Reality development, with a focus on interaction design and best practices, for a class of approximately 60+ students.
- ◆ Reviewed and improved students' projects by offering concise, actionable feedback on project implementation, real-time rendering, and interaction design.

AI Intern

Hangar 13 | Summer 2021

- ◆ Developed and implemented AI decision-making systems for a multiplayer open-world AAA game, improving both agents behavior and responsiveness.
- ◆ Optimized performance by profiling CPU and GPU usage, debugging logic processing systems, and reducing computational overhead.
- ◆ Diagnosed pitfalls with the reasoning systems, resolving complex pathfinding, dynamic threat assessment, 3D spatial awareness, and behavior tree issues.

Projects

Dynamically Adjustable Motion Captured Data Renderer

VR & 3D Interaction Projects

Water Fluid/Pressure Simulations

Physics & Cloth Simulations

Bus Scheduling Simulator

A more comprehensive list of all projects is located on my website.

React Bot

Personal Projects | Python, PostgreSQL

- ◆ Designed and built a feature-rich Discord bot that uses real-time message parsing to send unique responses to users in both guilds and direct messages.
- ◆ Streamlined database querying and health to ensure fast response times, while efficiently storing responses, server settings, and behavior preferences.
- ◆ Deployed and actively maintained post-release, ensuring 99% uptime, monitoring performance, and rolling out updates for 500+ active Discord servers she's in.

Leadership + Awards

Video Game Development Club VP

立命館大学衣笠 SKP

BSA Eagle Scout

Tri-M Music Honor Society

UMN Dean's List