

# Emmett Kapsner

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## EDUCATION

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*University of Minnesota, College of Science and Engineering*

*Minneapolis, MN*

**Bachelor of Science, Computer Science**

German Minor

May 2024

GPA: 3.6

## SKILLS

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**Languages:** PHP, JavaScript/Typescript, C, C++, Python, SQL, GLSL

**Frameworks/Libraries:** Laravel, React

**Web:** HTML, CSS, JSON, REST APIs

**Tools:** Git/GitHub/GitLab, Docker, VS Code, Figma, Trello, Microsoft Office / Google Workspace

**Other:** Linux / Unix, Scripting (Bash/PowerShell), Agile / Scrum, German (Intermediate)

## WORK EXPERIENCE

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*Nagios Enterprises*

*Saint Paul, MN*

**Software Developer**

March 2025 – Present

- Write clean, modular JavaScript and PHP code with a focus on scalability, reusability, and maintainability
- Conduct detailed QA testing to ensure high performance, cross-browser compatibility, and responsive design standards
- Contribute to open-source web projects, collaborating with the community and following best practices for code quality
- Collaborate with cross-functional teams to design, build, and iterate on full-stack web applications
- Use Git for version control, managing branches, code reviews, and streamlined team collaboration in an Agile workflow

*Loyola Spirituality Center*

*Saint Paul, MN*

**IT Contractor**

December 2024 – Present

- Streamline operations by automating workflows, enhancing productivity and efficiency
- Manage and analyze large datasets using spreadsheets and custom JavaScript solutions
- Provide technical support for virtual meetings, ensuring minimal disruptions and a smooth experience
- Train staff on software tools and best practices to improve technical proficiency
- Maintain and update IT systems to support organizational goals and improve performance

## PROJECTS

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**Ray Tracer**

January 2023 – December 2024

- Developed a ray tracer from scratch in C, implementing advanced rendering techniques
- Implemented a variation of the Blinn-Phong reflection model to simulate realistic lighting effects

**2D Rigid Body Simulation**

November 2023 – December 2023

- Created a 2D rigid body simulation system from scratch using Processing, incorporating rotational dynamics and collision detection
- Implemented the Separating Axis Theorem (SAT) to accurately detect collisions between convex shapes, enabling realistic interactions between objects