



# Jeremy Noesen

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## Education

**Master of Engineering • Computer Engineering • Iowa State University • Ames, IA • Jan. 2023 - May 2025 • GPA: 3.53**

**Bachelor of Science • Computer Engineering • Iowa State University • Ames, IA • Aug. 2019 - May 2023 • GPA: 3.59**

## Experience

**Temporary Assistant • Mid America Water Treatment • Bartlett, IL • Sep. 2025 - Nov. 2025**

- Redesigned and updated website features to enhance usability and customer experience.
- Automated repetitive workflows to reduce manual effort and improve operational efficiency.
- Produced custom graphics and visual assets to support branding and digital communications.

**Teaching Assistant • Iowa State University • Ames, IA • Jan. 2023 - May 2025**

- Collaborated with faculty to evaluate student work and provide detailed technical feedback.
- Enhanced instructional materials to improve clarity and accessibility for peers.
- Delivered technical instruction and academic support under tight deadlines, ensuring student success.

**Java Plugin Developer • Prism Charity • Remote • Oct. 2016 - Jan. 2020**

- Designed and implemented Java plugins to expand functionality and enhance user experience.
- Moderated and supported an online community to ensure safety, engagement, and collaboration.
- Increased team productivity by delegating responsibilities and streamlining task management processes.

## Projects

**homebridge-dyson-bp01 • Sep. 2022 - Present**

- Developed a Node.js plugin to integrate an IR-controlled Dyson fan with Apple HomeKit.
- Implemented real-time device state synchronization to improve reliability and user experience.
- Published the plugin to NPM, making it accessible to a global user base.

**MatrixDisplay • Dec. 2021 - Present**

- Designed and built a decorative smart display system using Raspberry Pi and Python.
- Created a web-based interface for intuitive local control and customization.
- Developed a REST API to enable seamless integration with smart home platforms.

**Simple Graphics Processor • Jan. 2022 - Feb. 2023**

- Engineered a GPU architecture in VHDL and paired driver software in C with OpenGL support.
- Collaborated with a team to design and implement low-level solutions for complex rendering algorithms.
- Prioritized performance and correctness to reduce compilation cycles and streamline testing.

**CyBot • Jan. 2021 - May 2021**

- Programmed an iRobot Roomba in C to operate semi-autonomously with sensor-based navigation.
- Built a visualization interface to map real-time surroundings from raw sensor data.
- Worked in a team to deliver functional robotics solutions within strict deadlines.

## Skills

**Programming Languages:** Java, Python, C, TypeScript, JavaScript, HTML, CSS, VHDL, Verilog, Kotlin

**Frameworks & Tools:** JetBrains IDEs, VS Code, Git, Docker, Vivado

**Soft Skills:** Teamwork, Problem-Solving, Adaptability, Leadership, Attention to Detail, Organization

## Activities

- Active in marching and concert ensembles (2011–2025), building teamwork, leadership, and discipline through performance and rehearsal.