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

AI Sponge Lite • **Jun. 2024 - Present**
- Developed an entertainment-focused Discord bot in Python leveraging OpenAI's API for parody content generation.
- Engineered solutions to work around API rate limits, minimizing downtime and improving reliability.
- Distributed the bot through Discord's App Directory, achieving 1,800+ active installations and broad user adoption.

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.

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.