Lucas Gehner

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Education

Missouri University of Science & Technology — May 2027

B.S. Computer Science — **GPA: 3.9/4.0**

- Kummer Vanguard Scholar
- Honors Academy Member
- Chair, ACM Web Development Club

Experience

Hazelwood West Robotics Team — Hazelwood, MO

Head of Programming — Sep 2021 – Mar 2023

- Directed programming efforts for the FIRST Tech Challenge robotics competition, delegating tasks and mentoring junior developers.
- Developed autonomous robotics code using Java, integrating Vuforia, TensorFlow, and custom TensorLite models.
- Authored comprehensive documentation to ensure long-term sustainability and facilitate training for new team members.

Leadership

ACM Web Chair — Aug 2025 - Present

- Taught weekly coding workshops on HTML, CSS, and React, driving a 200% increase in club membership and retention compared to the previous semester.
- Led the development of a full stack website for the St. Louis-based nonprofit Men's Club, coordinating project planning, design, and execution.
- Crafted comprehensive documentation for ACM Web, including a constitution, reusable presentation materials, post-meeting reflection reports, and transition documents to support future club leadership.

Projects

Slotify | React, HTML/CSS, JavaScript, Spotify API, Git/GitHub — Mar 2025

- Created *Slotify*, a Wordle-inspired web game in 36 hours at a Hackathon, collaborating with a team of 2 developers to deliver a working prototype while under high pressure and fast conditions.
- Implemented a responsive React frontend integrated with the Spotify Web API and Playback SDK, enabling seamless playlist input, random song retrieval, and real-time audio playback to support reliable game functionality.
- Designed a Wordle-style guessing mechanic where users heard a 6 second sound clip from a random song and submitted guesses. Dynamic feedback was then displayed for categories such as song title, artist, and genre in green or yellow, providing clear visual cues on guess accuracy and enhancing user engagement.
- Optimized API calls to handle playlists of 100+ songs efficiently, ensuring responsive gameplay while minimizing latency.

ImageCrypt | Python, Raspberry Pi, Git/GitHub — Jul 2025

- Built ImageCrypt, a steganography tool that securely hides encrypted messages within image files.
- Engineered a custom bitwise algorithm that subtly modifies pixel color values across any image format to embed messages while preserving visual fidelity and security, making any alterations imperceptible to the naked eye.
- Optimized for Raspberry Pi, validating the algorithm's efficiency in resource-constrained environments without compromising encryption or decryption accuracy.
- Delivered a command-line interface for seamless message encoding and retrieval, improving usability for end-users.

Relevant Skills/Coursework

Programming Languages: Python, C++, Java, Bash, JavaScript, HTML/CSS, SQL

Developer Tools: Git/GitHub, VSCode

Frameworks/Libraries: React, Vite, Node.js, Flask API

Coursework: Micro Controllers, Computer Networks, Intro to Databases, Programming Languages and Translators, Data Structures, Algorithms, Operating Systems, Theory of Computer Science