**A qr code with a black and white background

AI-generated content may be incorrect.Jesus Soto González**

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**Education**

Scan to view my web portfolio!

**Iowa State University** | Ames, IA

Bachelor of Science in Software Engineering GPA: 3.61

Minor in Artificial Intelligence Expected Graduation: December 2025

Relevant Coursework: Data Structures and Algorithms, Embedded Systems, Operating Systems, Web Development, Database Management Systems, Principles of Artificial Intelligence, Machine Learning, Natural Language Processing.

**Des Moines Area Community College** | Ankeny, IA

Associate of Applied Science in Diesel Technology GPA: 3.77 | Graduated: May 2021

**Technical Skills**

**Programming Languages:** C, C++, Python, JavaScript, TypeScript, Java, SQL

**Frameworks/Tools:** React, Node.js, Git, Linux, MySQL, REST

**Platforms:** ROS2, Unity, Android SDK

**Projects**

**GridAI – Smart Grid Management Platform** | Senior Design Project

Tech: *React, TypeScript, Kafka, Firebase, WebSockets*

* Built a customizable widget system for live electric grid telemetry with real-time JSX editing.
* Integrated Kafka and WebSockets for streaming grid data into dynamic, user-defined dashboards.
* Developed secure RESTful APIs for widget management with Firebase auth and Firestore persistence.

**Probabilistic Escape-Pursuit Planning** | Principles of Artificial Intelligence Final Project

Tech: *Python, NumPy*

* Developed a top-ranked AI agent for a probabilistic multi-agent grid simulation with uncertain movement.
* Combined A\* pathfinding with a rotation-aware strategy using EMAs and a sliding window estimator.
* Achieved 1st place by dynamically switching between pursuit, evasion, and neutral modes based on real conditions.

**Fully Autonomous System Development** | CprE 288 Embedded Systems Final Project

Tech: *C, iRobot, Sensors*

* Programmed autonomous navigation using SONAR and IR sensors with real-time obstacle avoidance.

**Kitchen Mingle** **– Android Recipe Finder App** | COM S 309 Software Development Practices Team Project

Tech: *Java, Spring Boot, MySQL, Android SDK*

* Built RESTful APIs and database schema for recipe search and user features.
* Integrated backend with Android frontend in an Agile, team-based environment.

**Work Experience**

**Brown NationaLease** | Iowa Falls, IA

*Certified Diesel Technician* | May 2021 – May 2022

* Diagnosed and repaired complex mechanical systems, applying analytical problem-solving skills.

**Iowa Select Farms** | Jewell, IA

*Maintenance Technician* | August 2017 – May 2021

* Developed troubleshooting procedures for equipment failures, enhancing critical thinking and reliability.

**Leadership / Activities**

**Cardinal Space Mining Club |** Safety Officer

* Oversaw safety protocols and contributed to controls system development and prototype testing.

**Software Engineering and Computer Science Club |** Member

* Contributed to collaborative coding sessions and tech talks focused on modern software practices.

**SHPE |** Member

* Collaborated with peers in workshops and events focused on Latino excellence in STEM.