

JEDREK JURJOVEC

970-459-7285
jedrekleo@gmail.com
Fort Collins / Golden, CO
[linkedin.com/in/jedrek-jurjovec](https://www.linkedin.com/in/jedrek-jurjovec)



Education

Colorado School of Mines, Golden, CO — B.S. Electrical Engineering **Dec 2027** GPA: 3.72
John Cabot University, Rome, Italy — Study Abroad **Summer 2026** GPA: 4.0
Front Range Community College, Fort Collins, CO — A.S. **May 2024** GPA: 3.89

Personal Projects

Visit projects.seraphbible.com or scan QR code

Seraph Bible App — in development **Summer 2026**

- Built a single Expo (React Native) client for iOS, Android, and web; public demo at app.seraphbible.com.
- Implemented Supabase Auth and Postgres with row-level security to isolate user data; web app hosted on Cloudflare utilizing R2 bucket storage.
- Scheduled GitHub Actions to curate daily liturgy data in Postgres, and proxied AI chats through a backend function so the API key is never exposed on the client side.

Minecraft Compass **Summer 2025**

- Designed a custom PCB (EasyEDA, SMT and hand soldered part assembly) integrating an ESP32-C3, QMC5883L magnetometer, and 40-LED matrix for a heading display.
- Wrote ESP32 firmware (MicroPython, then C++) for I2C sensor communication, magnetometer calibration, battery telemetry, and LED needle rendering; validated in a Python-based simulator before testing on real hardware.
- Manufactured a space-optimized SolidWorks enclosure featuring a 3D-printed ASA shell for UV resistance, heat-set inserts for PCB mounting, and a plexiglass faceplate for LED diffusion.

Ceramic Kiln Retrofit **Summer 2024**

- Specified replacement 2500 W / 240 V elements to raise maximum firing temperature from 1700°F to 2300°F.
- Added ventilation interlocked to element power, plus GFCI and thermal-fuse protection.
- Automated firing with a Raspberry Pi PID feedback controller, K-type thermocouple, and LAN dashboard (open-source kiln-controller).

Truck Audio System **Summer 2023**

- Installed a 5-channel amplifier, door speakers, and 10-inch subwoofer; set gains and crossovers with an oscilloscope to avoid clipping and maximize performance.
- Built a 4-channel relay and cab-to-bed harness so one amp drives either the cab or a removable roof-box.

Leadership & Experience

VP of Risk | Open-Side Flanker, Mines Rugby (NCR D2) **Fall 2024 — Present**

- VP of Risk (2025–present): Maintain readiness of first aid and trainer gear across all team events and travel.
- Starting open-side flanker; 2025 NCR D3 15s Elite Eight; 4th at 2024 NCR D3 15s nationals.

Front Desk Assistant | Arthur Lakes Library, Golden, CO **Fall 2025 — Present**

- Provide patron assistance, manage circulation desk operations, and maintain library collections.

Crew Lead | Billy Goat Moving Company **Summers 2022 — 2025**

- Crew lead (2024–2025): Safe and timely transportation of goods, client communications, and training of new hires.

Volunteer | VBS Set Design, St. Elizabeth Ann Seton Parish **2017 – 2025**

- Directed Vacation Bible School set design each summer; in 2020 produced a 6-hour video series so VBS could run remotely.
- Filmed and broadcasted livestreamed Masses during COVID (later a paid slides/cameras role through 2023).

Technical Skills

- **Hardware:** Microcontrollers (ESP32, PIC18F25k22), FPGA, Soldering, Wiring/Connectors, 3D printing, Power Supplies
- **Measurement & Validation:** Oscilloscopes, Digital Multimeters, Clamp Meters
- **Engineering Software (CAD/EDA):** SolidWorks, EasyEDA (PCB design), LTspice, MPLAB X
- **Languages & Web Tech:** C/C++, Python, MATLAB, Expo/React Native, Supabase, Cloudflare, Git/GitHub Actions
- **Certifications:** SolidWorks (CSWA), OSHA 10, First Aid / CPR / AED