

# Will Turchin

Colorado Springs, CO | (425) 414-9745 | wturchin@gmail.com | [linkedin.com/in/william-turchin](https://www.linkedin.com/in/william-turchin) | [willturchin.com](https://willturchin.com)

## Education

Colorado School of Mines Golden, CO  
*Combined BS/MS in Computer Science, GPA: 3.898* *Expected May 2027 (BS), May 2028 (MS)*

- **Relevant Coursework:** Systems Programming, Databases, Probability & Statistics, Advanced Algorithms
- **Activities:** Formula SAE, Resident Advisor

## Experience

**Software Engineering Intern, Platform** May 2026 – Aug. 2026  
*Ibotta* *Denver, CO*

- Migrated Databricks warehouses to serverless, eliminating 30-second to 5-minute cold starts.
- Established a 7-spec Playwright suite as a required CI/CD gate with under 5% flake.
- Automated confidence scoring and review workflows for Dependabot and Renovate pull requests.
- Led a repo-context initiative for AI tooling and developer standards across 1.7K repositories.

**Software Engineering Intern** Jan. 2025 – Aug. 2025  
*Raven Biosystems* *Seattle, WA*

- Designed camera and computer vision systems for the RavenScope™ digital microscope.
- Built a 64 MP Raspberry Pi imaging system with automated focusing, cropping, and sample-region detection.
- Automated 20  $\mu$ m-resolution slide analysis in under 5 minutes with Java-based ImageJ and Python workflows.

**Data Systems Lead** Aug. 2024 – Present  
*Mines Formula Team* *Golden, CO*

- Led telemetry and visualization for a Formula-style racecar; mentored four junior team members.
- Processed data from 10+ CAN, GPS, acceleration, wheel-speed, and temperature sensors at up to 20 Hz.
- Built Rerun visualization and state-estimation tools to diagnose vehicle behavior and bottlenecks.
- Built a CAN driver display for telemetry and engine-failure warnings with under 20 ms latency.

## Projects

**Ibotta Repo Context Agent** | *Python, LLM APIs, AWS Bedrock AgentCore, GitHub APIs*

- Developed an agent that converts codebases into structured, LLM-readable context.
- Improved coding-agent performance by 2% on internal benchmarks.
- Implemented an AgentCore backend and GitHub webhooks supporting 1.7K repositories.
- Standardised README and CONTRIBUTING templates for engineers and AI agents.

**Formula SAE Telemetry & Observability Platform** | *InfluxDB, Grafana, Docker, Linux, Python*

- Deployed Dockerized InfluxDB and Grafana telemetry for 10+ vehicle sensors at 20 Hz.
- Built real-time dashboards for CAN, GPS, acceleration, wheel speed, and temperature data.
- Standardized time-series schemas and ingestion across electronic control units and sensor frequencies.
- Migrated telemetry to a Linux Ubuntu server with Docker Compose, backups, and health monitoring.
- Led telemetry development; mentored four teammates on architecture, Git, and deployments.

**Botta Daily Spin: Ibotta Hackathon People's Choice Winner** | *React, TypeScript, CSS*

- Led development of a Temu-inspired daily rewards experience that won People's Choice among 29 projects.
- Built a responsive prize wheel with weighted outcomes, easing, reveals, and rare-prize effects.
- Collaborated with an eight-person intern team to deliver a functional prototype during a two-day hackathon.

**AI Classical Music Generator** | *Python, PyTorch*

- Trained a PyTorch-based sequence model on classical music to generate melodies.
- Developed a custom dataset to convert 35 MIDI files into 1,000 tokenized input sequences for training.
- Generated polyphonic sequences with recognizable motifs after 50 epochs of training.

## Skills

**Languages:** C/C++, Python, TypeScript, Java, SQL, Assembly  
**Libraries & Data:** PyTorch, Pandas, NumPy, Scikit-learn  
**Cloud & Infrastructure:** AWS Bedrock, Docker, GitHub Actions, Linux, Terraform, Databricks, InfluxDB, Grafana  
**Frameworks & Systems:** React, Playwright, CMake, Protobuf, CAN bus, Git  
**AI Systems:** LLM APIs, AWS Bedrock, MCP, LLM Evaluation, Agentic Workflows