

Dylan Coon

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EDUCATION

B.S. Computer Science (Mathematics Minor) — The Pennsylvania State University 2020 – 2024

SKILLS

Languages: Python, C++, Go, C

Frameworks / Tools: Claude Code, Docker, React, PyTorch, YOLO, REST APIs, GitHub/Lab, Jira

Cloud / DevOps: AWS (EC2, S3, Lambda, KMS, SES, EventBridge, CodePipeline, Secrets Manager), GCP, Linux (Ubuntu), Github Actions, Grafana

Databases: PostgreSQL, Redis

EXPERIENCE

Iron Mountain — Software Engineer — Remote

June 2024 – Present

- Developed Python automation for cloud billing and file reprocessing for content integration systems in AWS and GCP; change management for 450+ clients deployed via Jenkins.
- Built AWS and GCP services to streamline billing operations and improve reporting frequency.
- Designed automation workflows saving 1,000+ hours per quarter in manual labor across multiple teams.
- Architected MVC-based Python CLI tools, isolating business logic to support multiple output formats and unit testing.
- Automated service version reporting via Kubernetes API, increasing release visibility and reducing environment drift diagnosis time.
- Triageed production incidents and remediated failures in on-call rotation to maintain contractual client SLAs.
- Obtained security clearance to work on government and regulated data projects.
- Developed and maintained internal automation tools to streamline ad-hoc operational workflows.

Iron Mountain — Software Engineering Intern — Remote

May 2023 – May 2024

- Member of the machine learning models team; worked on enhancing intelligent document processing.
- Implemented Python data processing for YOLOv5 object-detection pipelines.
- Achieved 10x speed increase in data training via Python multiprocessing; refactored legacy code and resolved QA bugs.

PROJECTS

Grid Path Planner Benchmark — C++, Python, pybind11, Cmake, Google Test — [Github](#)

- Built a C++20 library for drone path planning (BFS, Dijkstra, A*, weighted A*) on 2D/3D obstacle grids, with pybind11/NumPy bindings. It's checked against a Python reference using 118 Google Test/pytest tests and runs 11–28x faster than Python. Benchmarked across obstacle densities, grid connectivity and 2D/3D sizes.

Gaze Detection Model Evaluation Harness — Pytorch, FastAPI, MLflow, Github Actions — [Github](#)

- Developed a platform for benchmarking gaze estimation models; automated inference, metric computation, and CI regression gating.
- Integrated INT8 quantization evaluation and a FastAPI dashboard with Pareto frontier visualizations for model comparison.

Autonomy Data Engine — Python, YOLOv8, Polars, MLflow, Docker — [Github](#)

- Active-learning data engine for autonomous driving perception that identifies the most valuable frames to label from a 70K-image driving corpus using ground-truth-free mining signals (detection uncertainty, rare-class scoring), achieving improvement over random selection at an identical 2,000-frame label budget.
- Five-stage resumable pipeline (ingest, infer, mine, train, evaluate) with scene-wise splits to prevent data leakage, diversity-constrained selection, Parquet-based artifact storage via Polars, and MLflow experiment tracking

Real-Time Detection Pipeline — C++17, Python, React/TypeScript, Kafka, Docker — [Github](#)

- Architected a video analytics system for Raspberry Pi using YOLOv8 (ONNX Runtime) and decoupled C++ microservices.
- Utilized Kafka for metadata, Redis for real-time aggregation, and PostgreSQL for historical analytics.