

Phoenix Sheppard

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EDUCATION

The University of Michigan

Ann Arbor, MI

B.S.E in Computer Science, Minor in Geospatial Science — GPA: 3.73

May 2027

- **Coursework:** Data Structures & Algorithms, Web Systems, Computer Organization, Unix Programming, Linear Algebra, Object Oriented Programming in C++

EXPERIENCE

Pursuit Markets

May 2025 - Present

Software Engineering Intern

Ann Arbor, MI

- Saved **\$70,000+** per year in LlamaIndex and OpenAI API spend by adding content-hash-based re-extraction filters that prevent redundant web-scrapes
- Boosted platform data accuracy **40%** by architecting a Temporal-driven, distributed scraping pipeline that refreshes all contact data within a 30-day SLA
- Cut container memory use **50%** and saved **\$5,000** per year by replacing full in-memory S3 uploads with an async, generator-based streaming approach in ECS
- Reduced database query time by **80%** after migrating **30 million** documents and deleting **15 million** redundant rows, unlocking faster operations for users and developers
- Resolved the #1 customer pain point by building dynamic contact-status tracking by monitoring HTTP codes and content changes, contributing to the company's highest-revenue month in history

Citywide Painting Corp.

August 2020 – August 2024

House Painter, Invoice Clerk

New York, NY

- Painted Section-8 housing across all five New York City boroughs; coordinated with building management staff to organize daily agenda
- Invoiced management companies using Intuit QuickBooks and Yardi VendorCafe while logging and filing all business transactions

PROJECTS

Fortnite Item Tracker | *Go, Gin, PostgreSQL, Docker, Telegram API*

- Developed a Telegram Bot and web app to alert users when cosmetics they track become available in the Fortnite item shop with mobile push notifications
- Implemented a secure authentication flow that uses Telegram Login for identity verification and issues JSON Web Tokens for session management
- Optimized SQL schema using normalized join tables, enabling efficient queries on many-to-many relationships

Raven | *Python, FastAPI, Celery, Redis, SQLite, Scrapy, Docker*

- Developed a distributed web scraper that identifies and prioritizes high-value links using a custom relevance heuristic powered by the ChatGPT API
- Engineered a scalable, asynchronous architecture leveraging Celery for distributed task queuing and Redis as a message broker, enabling the system to handle thousands of concurrent scraping requests
- Designed and implemented a RESTful API with FastAPI, providing programmatic access to source pages, target pages, and scraping statistics

Renewable Suitability Classifier | *Python, Scikit-Learn, Pandas, NumPy*

- Implemented Semi-Supervised Random Forest Classifier to predict site suitability for potential wind and solar energy installations across continental US using resource and technical potential metrics
- Extracted Typical Meteorological Year (TMY) data from the National Renewable Energy Laboratory's (NREL) Physical Solar Model; used Chi-squared statistical analysis for feature selection
- Authored research paper (1st author); accepted to International Journal of High School Science
- Presented work at the Junior Science and Humanities Symposium; placed 2nd in NYC region, 7th in NY state

SKILLS

Languages: C++, Python, Go, JavaScript/TypeScript, Java, SQL

Tools: MongoDB, PostgreSQL, SQLite, Docker, Git, Linux/Unix, Redis, AWS, Node.js, OAuth 2.0, Temporal.io

Frameworks/Libraries: FastAPI, Gin, Next.js, Nest.js, React.js, Pandas, NumPy, Scikit-Learn, Playwright, Selenium