Hrithvik Alex Venu

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Skills

Python • OCaml • C++ • SQL • Pandas • Rust • Scala • Javascript • WebGPU • Lua • React

Work Experience

Baseten, *Model Performance Engineer*   02/2026 – Present │ NYC, New York
- optimizing LLM performance

Jane Street, *Software Engineer - Fixed Income*   08/2023 – 12/2025 │ NYC, New York
- **Doubled** historical marketdata coverage for research datasets by developing high-throughput **OCaml** data pipelines with retry-aware ingestion and blob-storage caching for enhanced reliability
- Improved pricing accuracy for interest rate products by leading research initiatives to identify optimal per-product market data sources using **Python** and Pandas
- Reduced average historical metadata read latency by **60%** through designing a columnar query framework and migrating the underlying transaction logs to Parquet
- Mentored an intern to build a **SQL**-based monitoring and alerting system, reducing production incident response times by several hours

Jane Street, *Software Engineer Intern*   09/2022 – 12/2022 │ NYC, New York
- Integrated client order IDs across all connected crypto exchanges, improving order traceability and consistency in order tracking
- Developed an **OCaml** framework to incorporate new data sources into our internal metadata platform

Wolverine Trading, *Software Engineer Intern*   05/2022 – 08/2022 │ Chicago, IL
- Overhauled an Order Execution reporting framework using **C++** to reduce creation speeds by **30%**
- Designed a **Lua** API to streamline the user experience for creating new reporting workflows

Databricks, *Software Engineer Intern - Ingestion*   01/2022 – 04/2022 │ San Francisco, CA
- Created and architected an archiving system for our data streaming service using **Spark** and Scala to save **millions** in storage costs for customers
- Improved column pruning for binary file formats in Open Source Spark, saving greatly on read times

Projects

2D WGPU Game Engine, *https://www.hrithvikalex.me/blog/webgpu-2d*
- Implemented rendering, physics, lighting, animation, and input systems from scratch using **Rust**
- Rendered frames at **100+ FPS** by running shaders on the GPU using WebGPU and WGSL

Performance Aware Programming Course, *https://github.com/Hrithvik-Alex/perf-aware-programming*
- Created an 8086 decoder and emulator in **C**
- Implemented a lightweight profiler using assembly primitives

Education

Computer Science, *University of Waterloo, Bachelors*   09/2018 – 04/2023 │ Waterloo, Canada
- 3.91/4.0 GPA
- Minor in Combinatorics and Optimization