Hristo Sandev

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Experience

Shopify May 2025 – Aug. 2025

Software Engineer Intern

- Created an automatic, robust and highly configurable courier data ingestion pipeline indexing ElasticSearch instances with latest data to serve address geocoding, autocompletion, and validation requests, **improving checkout address validation rate by 1.6x**.
- Performed a full refactor of address geocoding and validation code for checkout, **halving address-related errors**.
- Resolved a dozen SEV-2 bugs **which previously affected millions of global users**.
- Built an abstraction layer to unify address validation APIs (Melissa, Smarty) for benchmarking internal address validation providers. My work powered Canada benchmarks, enabling address validation rollout and **boosting suggestion click rate by 1.8x in Canada**.
- Received "**far exceeds expectations**" on impact review, an exceptionally rare rating for interns.

Ploomber Aug. 2024 – Dec. 2024

Software Engineer Intern

- Streamlined container orchestration for **thousands of users** for frameworks like Voila and Streamlit.
- Contributed heavily to deployment optimizations, **reducing the total deployment time by 53%**.
- Fixed critical user-facing bugs for application deployment and application configuration, **leading to 1.3x better conversion rates**.
- Implemented graceful termination and exception handling of applications during and after deployment, enabling efficient resource clean up and **reducing AWS costs by 15%**.
- Worked on efficient real-time log sync between application container output and displaying it on the front-end, which included auto-refreshed endless scrolling for memory efficiency. **Reduced total network payload by 67% and browser memory consumption by 44%** when viewing application logs.

Flojoy Jun. 2023 – Apr. 2024

Founding Software Engineer

- **Accelerated $1M+ seed funding** by delivering impactful product demos and rapid prototypes.
- Developed a visual scripting interface for microcontrollers (Arduino, Raspberry Pi Pico) which are extremely resource-constrained, solving challenges involving bundling the runtime environment, bootstrapping code, and the visual scripting interpreter, **pioneering flow chart programming solutions in this domain**.
- Developed a test sequencing system with AI-generation support using RAG.
- Created a highly configurable numerical expression parser and evaluator in Python tailored specifically for test sequencing needs, **which outperforms the OSS alternative PyParsing with 2.6x smaller eval time**.

Education

McGill University Montreal, QC

Bachelor of Science in Computer Science *Sept. 2022 – Apr. 2027*

- GPA: 4.0 / 4.0
- Relevant Courses: Algorithms, Data Structures, Software Design, Applied Machine Learning, Concurrent Programming, Databases, Operating Systems, Compiler Design

Awards

Emily Ross Crawford Scholarship – Awarded to candidates of high academic merit.

Major Renewable Undergraduate Scholarship – Merit-based renewable scholarship.

Dawson Math Challenge Winner – Mathematics Certificate of Excellence.

Technical Skills

Languages: Python, Ruby, Typescript, JavaScript, Golang, Java, C, OCaml, SQL
Database: Postgres, MongoDB, (in-memory) Redis
Frameworks: React Native, NextJS, Ruby on Rails
Developer Tools and Others: Docker, GitHub Actions, ElasticSearch, AWS, GraphQL