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 1.5x.
- Refactored address geocoding and validation code for checkout, halving address-related errors.
- Resolved a dozen SEV-2 bugs, improving checkout experience for 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 2x 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, halving the total deployment time.
- Fixed critical user-facing bugs for application deployment and application configuration, leading to 1.25x 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.

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 visual test sequencing system with AI-generation using RAG.

Projects

Compiler | Java

- Compiles a subset of C with OOP features to MIPS assembly.
- Implements optimizations such as graph-coloring register allocation.

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

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