Utrecht, Netherlands
csochinjensem@gmail.com

Curtis Chin Jen Sem

https://crtschin.com
https://github.com/crtschin

Summary

Functional programming enthusiast and avid polyglot. A skilled software developer with a passion for learning and solving real-world problems in innovative ways.

Employment

Software Engineer **Channable** **02/2021 - Present**

- Refactored infrastructure responsible for importing terabytes of data from external services per day, improving debuggability and observability.
- Designed and implemented AI-assisted categorization using state-of-the-art techniques for mass text classification, improving the existing model performance by 3x.
- Led the integration of user-defined computations into a high-performance compute pipeline through analysis, and application of programming language theory.
- Improved core capabilities by analyzing the expressivity and usability of internal systems, creating well-researched proposals, improving scalability, performance and developer experience.

Software Engineer **Cargowatch B.V.** **02/2018 - 12/2020**

- Implemented a specialized web portal for customer support and designed a DSL for invoicing specification.
- Algorithmically improved the existing automatic invoicing process.

Education

Utrecht, Netherlands **Utrecht University** **2018 - 2020**

- Master of Science in Computer Science
  Thesis: Formalized Correctness Proofs of Automatic Differentiation in Coq.
- Coursework: Advanced Functional Programming, Compiler Construction, Program Semantics and Verification, Concepts of Program Design, Optimization and Vectorization.

Utrecht, Netherlands **Utrecht University** **2015 - 2018**

- Bachelor of Science in Computer Science
- Coursework: Data Structures, Algorithms, Functional Programming, Discrete Mathematics, Languages and Compilers.

Projects

- **Helium** (2020) **Haskell**
  Contributed to the Helium Haskell compiler developed at Utrecht University. Implemented missing Haskell2010 features and improved interoperability between recent experiments and previous work on the compiler.
- **Nedtrain (Nederlandse Spoorwegen)** (2018) **C#**
  Hybrid planning program combining heuristical algorithmic techniques with an intuitive user interface for creating plans for shunting and scheduling problems.

Programming Languages and Technologies

- Proficient: Haskell, Python, Nix, Git, SQL
- Familiar: PHP, Typescript, C#

Languages

- Dutch: Native or bilingual proficiency
- English: Native or bilingual proficiency