Utrecht, Netherlands
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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**

- Led a major refactor of the data pipeline which is responsible for importing terabytes of data from external services per day, easing debuggability and metrics.
- Led the design and implemention of AI-assisted categorization using novel techniques for mass text classification, improving the existing model performance by 3x.
- Led the integration of secondary data sources into a high-performance compute pipeline through analysis and application of programming language theory.
- Led multiple internal projects on various intermingling components improving scalability, performance and user experience.
- Languages: Haskell, Python, Nix.

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

- Implemented a specialized web portal for customer support and invoicing.
- Algorithmically improved the existing automatic invoicing process.
- Languages: PHP, Javascript, SQL.

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