Timothy Elgersma

4A, University of Waterloo, Computer Science

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Summary of Qualifications

- **Languages**: C++, Java, Javascript, Kotlin, LaTeX, OCaml, Python, SQL, Scala, Typescript
- Commended by managers for being a hardworking, dependable, and flexible team member
- Strong focus on testable code - every module I checked in had over 95% test coverage
- Excellent communication skills demonstrated through documentation, peer mentorship, presentations, and team meetings

Experience

SEPTEMBER 2020 – DECEMBER 2020
Compiler Engineer • Huawei

- Dramatically reduced time-to-debug by designing and implementing a script to identify the failing shader and optimization pass of an image generated with the Bisheng GPU compiler
- Combined several debug channels on a simulated device to rule out 80% of previously identified failures

JANUARY 2020 – APRIL 2020
Backend Developer • Faire

- Increased Faire's contribution margin by 180bps by implementing payment assistance plans and allowing the risk team to make timely, informed decisions by surfacing relevant customer and Plaid data
- Decreased customer support ticket count by 9% through heuristics to auto-handle common requests
- Reduced Faire's tax liability by 30% by collecting retailer tax information
- Refactored customer invoices for correctness, clarity, and simplicity

MAY 2019 – AUGUST 2019
Software Developer • Genesys

- Designed and documented Genesys Conversation Provider's database access module
- Improved solution resiliency by implementing a persistent queue for asynchronous backend communication in Typescript
- Increased testability by upgrading Jenkins pipeline to include Postgres for simple integration tests

Projects

JUNE 2020 – PRESENT
Developer • Crop Companion

- Crop Companion is an Android app that generates a planting schedule for a balanced diet for a varying population
- Implemented and tested the calculations, and designed and some input screens
- Created for CS 446 (Software Architecture), and under development to be adapted for Thrive For Good

JANUARY 2021 – APRIL 2021
Developer • Joos Compiler

- Compiles Joos 1W, a large subset of Java, directly into assembly for CS 444 (Compiler Construction)
- Designed and implemented scanning, parsing, analysis, and code generation in Scala

Education

SEPTEMBER 2017 – APRIL 2022
University of Waterloo • Bachelor of Computer Science

- Currently enrolled in 4A of a Bachelor of Computer Science
- **Relevant coursework**: CS 341 (Algorithms), CS 446 (Software Architecture), CS 458 (Security)