Devin Lehmacher

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SUMMARY

Self motivated software engineer with proven commitment to programming in Haskell. 2+ years of industry experience developing concurrent cloud services that comprise Microsoft's Azure AD identity platform. Strong theoretical background in functional programming and programming language theory from university courses.

EDUCATION

Cornell University Aug 2015 — May 2019
- Bachelors of Arts in Computer Science Ithaca, NY
- Cumulative GPA: 3.611

EXPERIENCE

Microsoft, Azure AD, *Software Engineer II* Aug 2019 — Present
- Design, prototype, develop, instrument, and test new features for backend service Redmond, WA
- Monitor and analyze metrics and logs for service to ensure quality of service
- Debug and fix bugs impacting customers' authentication
- Participate in regular security and privacy reviews to ensure compliance
- Coordinated sub-team of 4 through transition to service's general availability
- Prototyped and completed Cosmos DB migration to handle over 5x of the original load
- Integrated Polly, a C# fault handling library, with an existing cloud service

Cornell University, *Teaching Assistant* Feb 2016 — May 2019
- Taught weekly sections with 25 students Ithaca, NY
- Held weekly office hours to help students understand the course material
- Answered students' questions on Piazza course platform, during office hours, and after class
- Helped test, create, and plan future assignments
- Graded assignments and exams, giving students helpful feedback

Microsoft, *Software Engineering Intern* May 2018 — Aug 2018
- Designed a microservice architecture for a new cloud service Redmond, WA
- Worked with team to determine what the service's critical features are
- Implemented a prototype of those features using Microsoft Service Fabric and Azure

Itron Inc., *Intern* Jun 2017 — Aug 2017
- Created a dashboard to visualize available space for testing electrical meters Oconee, SC
- Utilized Transact-SQL to collect data for the dashboard
- Built and deployed reports to Sharepoint using Microsoft Reporting Services

PROJECTS

Xi Compiler, compiler for a simple C-like programming language
- Collaborated with a group of 3 other students over the course of a semester
- Implemented parser, type checker, optimizer, and x86 assembly code generation
- Added object oriented features while maintaining backwards compatibility

Graph System, Haskell knowlege graph console application
- Extensively uses algebraic effects via polysemy library to make code more testable
- Use GitHub Actions to ensure that test suite is run for all code changes
- Made several JSON schema migrations, requiring careful planning for backwards compatibility

Open Source
- Submit pull requests and bug reports, contribute to feature discussions
- Made git credential daemon conform to the XDG directory specification
- Added missing library functions to Haskell libraries

PortOS, minimal operating system running on a MIPS virtual machine
- Implemented multithreading with preemption, and TCP and UDP analogs
- Learned how to navigate and write a moderately sized (10,000 lines) C code base

Interpreters, interpreters and type checkers for variety of languages
- a subset Scheme, System F, OCalf (a subset of OCaml), and several others
- Learned how to write REPLs using Haskeline and implement parsers using megaparsec

SKILLS

Fluent: Haskell, C#, shell scripting, Azure, Git, Vim, Linux

Familiar: REST, C, Java, OCaml, Rust, SQL, Python, Nix