LELAND JANSEN

BSc Software Engineering
University of Alberta
Class of April 2019
GPA 3.5/4.0

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EMPLOYMENT

Apple · iOS Keyboards Intern   **May – December 2018**
- iOS Keyboards team member developing keyboard and autocorrect software for iPhone and iPad.

www.lelandjansen.com/apple | Objective-C, Cocoa Touch

Google · Software Engineering Intern   **May – August 2017**
- AdsCrawl team member developing backend logic and infrastructure to optimize the rate at which Ads data is processed.
- Developed Lightbulb RPC sharding service from **start-to-finish** in three months including design, implementation, testing, and deployment. Processes on the order of **100k requests/second**.
- Lightbulb reduced rejections between services by **6.1x** and compressed standard deviation by **5.0x**. Allows upstream service task count to scale without disproportionly increasing request rejections.

www.lelandjansen.com/google | C++, Google Test, Stubby (gRPC)

Zaber · Software Developer Co-op   **January – April 2017**
- Firmware and Electronics team member developing software to interface with Zaber's precision motion control products.
- Developed **three customer-facing features** during four-month placement: custom autocomplete text field, new software installer, and crash-reporting system including client and backend logic.

www.lelandjansen.com/zaber | C#, .NET, WPF, Python

Shopify · Developer Intern   **May – August 2016**
- Production Engineering Traffic team member developing reliable and scalable networking infrastructure to serve high-volume flash sales.
- Pioneered tooling framework to automate server tasks and enabled operation through ChatOps bot. Tools used daily by Production Engineering teams.
- Authored load balancer configuration and moved services to new infrastructure with **no downtime**.

www.lelandjansen.com/shopify | Ruby, Chef, RSpec

PROJECTS

Fatigue · iOS app
- Native iOS application for geophysical-survey pilots to self-assess their fatigue level.
- Developed UI **programmatically** with an intuitive data entry mechanism.
- Models questionnaire as a graph to enable a modular implementation and longest path computation.

www.lelandjansen.com/fatigue | *itunes.apple.com/app/fatigue/id1211561428* | Swift, Cocoa Touch

Quantus · Physics lab sensor
- Distance measurement device for high school and university physics labs (embedded system).
- Reduced speed-of-sound algorithm runtime by **67.7%** using calculus-derived linear approximations.
- Designed all project components including software/firmware, tooling, circuit board, and brand.

www.lelandjansen.com/quantus | C, C++, CMake

ScaleBook · Musical scale website
- Musical scale reference website for pianists studying towards technical examinations.
- Custom natural language processing algorithm interprets user queries with **99% accuracy**.
- Developed music algorithms to **compute scale information** in lieu of querying a backend database.

www.lelandjansen.com/scalebook | *www.scalebook.org* | JavaScript, CSS, Angular

LANGUAGES AND TOOLS

- Advanced proficiency with modern C++ and Python.
- Experience with C, Objective-C, C#, CSS, Java, JavaScript, Mathematica, MATLAB, Ruby, Rust, SQL, Swift.
- Experience with Angular, Chef, CMake, Cocoa Touch, Git, Google Test, gRPC, .NET, NUnit, RSpec, WPF.
- English (native), Spanish (advanced).

COMPLEMENTARY SKILLS

- Dedicated CrossFit athlete (2013 – present) training **5 days/week**.
- Level 8 piano with **first-class honors** (Royal Conservatory of Music, 2013).

www.lelandjansen.com/crossfit | *www.lelandjansen.com/music*