

dan.luu@gmail.com*

OBJECTIVE

I want to work with smart people on a great team making awesome things

EXPERIENCE

Student, Hacker School; New York, NY

Spring 2013

- ◇ Implemented channels and coroutines, using setjmp/longjmp¹ *C*
- ◇ Created an actor based BitTorrent client, using akka² *Scala*
- ◇ Contributed to reverse engineering jslinux³⁴ *JavaScript*
- ◇ Co-writing parser combinator library⁵ *Julia*
- ◇ Miscellaneous other open source contributions⁶⁷ *Rust, Julia, Scala, etc.*

Member of Technical Staff, Centaur Technology (acquired by VIA); Austin, TX

2005 – 2013

- ◇ The following is a typical six-month project (substituting a different ISA in our x86 processor):
 - Created architectural simulator and got Linux running on it *C*
 - Implemented 1/2 of the translator, and wrote associated microcode *Internal templating language*
 - Helped reversed engineer the ISA
 - Created test generator that found 90% of the first 1000 bugs on the project *F#*
- ◇ Other roles included formal verification, adding fault tolerance to a distributed system, post-silicon debug, test tooling, etc.

Research Assistant, Ultrafast Optics and Fiber Communications Lab; Lafayette, IN

2003 – 2005

- ◇ Sped up parallel (256 wavelength) polarimeter by 40x, from 50 Hz to 2 kHz *MATLAB and C*
- ◇ Designed and built Fourier transform spectroscopy interferometer *MATLAB and C*

Intern, IBM; Austin, TX

Summer 2003

- ◇ Semi-formal / constrained random POWER6 completion unit functional verification *VHDL*

Intern, Micron Technology; Boise, ID

Summer 2002

- ◇ Engineering hipster: working on flash before it was cool *Perl*

Research Assistant, Spatial Systems Research Laboratory; Madison, WI

2001

- ◇ Studied tilings and related combinatorial models, e.g., alternating sign matrices and square ice

EDUCATION

Electrical and Computer Engineering University of Texas, Austin, TX

2009 - Present

I'm enrolled mostly so that I can learn new things, just for a change of pace. I take the occasional course (Computational Learning Theory, Empirical Software Engineering, and Algorithms), and do a bit of research on the side (Algorithmic Game Theory, Empirical Studies in Software Engineering)⁸⁹.

* 408-256-1284

¹<https://github.com/danluu/setjmp-longjmp-ucontext-snippets>

²<https://github.com/danluu/storrent>

³<https://github.com/levskaya/jslinux-deobfuscated>

⁴<http://bellard.org/jslinux/>

⁵<https://github.com/astrieanna/juliaparsec>

⁶<https://github.com/JuliaLang/julia>

⁷<https://github.com/mozilla/rust>

⁸<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6083170>, Evaluation & Assessment in Software Engineering (EASE 2011),

⁹<https://sites.google.com/site/deangelistech/publications/towards-evaluating-human-instructable-software-agents>, International Conference on Interfaces and Human Computer Interaction (ICIHCI 2011)

- ◇ GPA: 4.0
- ◇ GRE: 5.5/800/740 (analytical/math/verbal)

M.S.E. Electrical and Computer Engineering
Purdue University, West Lafayette, IN

2003 – 2005

- ◇ GPA: 3.86 (4.0 in MS courses)
- ◇ GRE: 800/800/750 (analytical/math/verbal)

B.S. Math and B.S. Computer Engineering, with distinction
University of Wisconsin, Madison, WI

2000 – 2003

- ◇ GPA: 3.61 (4.0 in upper-division and graduate level ECE courses)

NON-WORK PROJECTS

- ◇ Sega system on Xilinx Vertex FPGA; translated Z80 instructions into RISC μ ops¹⁰ *Verilog and VHDL*
- ◇ S-99: Ninety-Nine Scala Problems¹¹ *Scala with JUnit*
- ◇ Formal verification of a secure hypervisor¹² *ACL2*
- ◇ Project Euler¹³ *F# and bluespec*

HONORS AND AWARDS

- ◇ MCD Fellowship 2009 - 2010
- ◇ Burton D. Morgan Entrepreneurship Competition Semi-Finalist 2005
- ◇ David Ross Fellowship (five years of guaranteed funding) 2003 - 2005
- ◇ SRC undergraduate research grant 2001 - 2003
- ◇ Dean's List 2001 - 2003
- ◇ VIGRE undergraduate research funding 2001
- ◇ AP Scholar with distinction 2000

MISCELLANEOUS

- ◇ Languages: English mother tongue. Once-fluent Vietnamese. Once-functional (now moribund) Japanese and French. Willing (and eager) to learn any language
- ◇ Work Authorization: U.S. Citizen

¹⁰<https://github.com/danluu/sega-system-for-fpga>

¹¹<https://github.com/danluu/ninety-nine-scala-problems>

¹²<https://github.com/danluu/secvisor-formal-verification>

¹³<https://github.com/danluu/Project-Euler>