Will Crichton

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Abstract

I create systems that merge research in programming language design and parallel computing to solve impactful problems. Currently, I'm focusing on tools to enable large-scale visual data analysis.

Education

2016-now **Stanford University**, Ph.D. in Computer Science.
Advisor: Pat Hanrahan

2012-16 **Carnegie Mellon University**, B.S. in Computer Science, minor in Chinese Studies.
Advisor: Kayvon Fatahalian

Research

2017-18 **Esper: Query, Analysis, and Visualization of Large Video Collections**. GitHub.
Research in progress.

2016-18 **Scanner: Efficient Video Analysis at Scale**. GitHub.
Alex Poms, Will Crichton, Pat Hanrahan, and Kayvon Fatahalian. SIGGRAPH 2018.

2015 **Lantern: A Query Language for Visual Concept Retrieval**. Paper.
Senior thesis, advised by Kayvon Fatahalian. *Alumni Award for Undergraduate Excellence.*

Work

summer 2017 **Snap, Inc.** Research intern, designed elastic video analytics system, reducing operational costs up to 10x.

summer 2015 **Jane Street Capital**. Software engineering intern, optimized memory allocation in OCaml language runtime, refactored distributed incremental computation library.

2015 **Expii**. Web developer, architected web front-end for education startup.

summer 2014 **Palantir Technologies**. Software engineering intern, developed business logic engine for criminal case management system.

summer 2013 **Tunessence**. Web developer, built interactive guitar tab learning tool for guitar learning startup.

summer 2012 **Pioneer Hi-Bred**. Software engineer, built BI app for analysis of laboratory efficiency in Pioneer labs.

2010-12 **Webspec Design**. Web developer, created 30+ websites for clients across the country.

Teaching

fall 2017 **Programming Languages** (CS 242). Instructor, Stanford.

spring 2017 **Computer Systems from the Ground Up** (CS 107e). TA, Stanford.

fall 2015 **Compiler Design** (15-411). TA, CMU.

spring 2015 **Parallel Computer Architecture and Programming** (15-418). TA, CMU.

2014 **Parallel and Sequential Data Structures and Algorithms** (15-210). TA, CMU.

2013-14 **Game Development on the Web** (mini student-taught course). Instructor, CMU.

fall 2013 **Functional Programming** (15-150). TA, CMU.