JACOB ADLEY

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421 Westcreek Drive, Warsaw, Indiana 46580

EDUCATION

Indiana University, Bloomington *August 2015 - May 2020*
Computer Science M.S. GPA: 4.000
Computer Science B.S., Mathematics B.S. GPA: 3.764
Relevant Courses Data Structures, Artificial Intelligence, Advanced Functional, Compilers

TECHNICAL STRENGTHS

Programming Languages	Racket(Scheme), Java, C, Python, Haskell, Coq, Pie, Javascript
Mathematics	Topology, Real Analysis, Linear Algebra, Calculus
Programming Language Theory	Dependent Types, Interpreters, Custom Languages, Compilers

WORK EXPERIENCE

Service Now May 2019 - August 2019
Platform Engineering Intern

· Designed new UI feature to dynamically render titles based on design-time values of the work-flow system using Java/JavaScript.
· Altered core database to store user data history as snapshots, eliminating dependencies and cutting the number of records needed per customer instance in half.

Crowe LLP May 2018 - August 2018
Applied Technology Intern

· Worked as sole web engineer on the Revenue Cycle Platform, creating new pages that efficiently mutated and interacted with customer data relying on full-stack production as well as machine learning support.
· Coordinated with database team members on all projects in order to minimize queries and ensure maximal efficiency when working with terrabytes of data.

Indiana University SICE Department August 2017 - December 2017
Undergraduate Instructor: Fundamentals of Data Structures

· Helped develop a dynamic curriculum based on student performance and overall feedback.
· Responsible for running lab sections, holding office hours, grading and preparing all assignments and examinations, as well as one-on-one tutoring with select students.

PROJECTS

Verified implementation of a heap: written in Coq, implementation and proofs about insert/merge preserving heap property as well as proofs about size.

Primal Form: custom language written in Racket where numbers are only represented as their prime-factorized form, done by overriding base functions like application and datum of the base language.

Compiler: uses interpreters within many compiler passes to transform a susbset of Racket to x86 assembly; currently completed, work in progress to expand initial language.

Other: Haskell/Racket interpreters, various fractals and games.

EXTRA-CURRICULAR

Club Runner - Compete in distances from 8K to Marathon for more than ten years.

Karate Club - Athlete and Club Treasurer. Responsible for organization of all financial aspects.

Linux - Interested in customizing operating systems (Arch) and software (Vim, Suckless Utilities) to their fullest extent using C and Bash.

Pass-times: chess, violin, reading, film, fitness.