

TSION BEHAILU

www.tsion.me

tsionbehailu@gmail.com • 404.944.5352

EDUCATION

University of California, Berkeley
Major: Computer Science

August 2011 - May 2015

SKILLS

- Java, C, Python, Matlab, L^AT_EX, AutoCAD
- Windows, OSX, Coda, Eclipse, XCode, Hadoop, Logism

PROJECTS

Processor Design

November 2013

<https://github.com/tbehailu/Processor.git>

- Used Logisim to create a 16-bit two-cycle processor. Designed the processor's register file to manage the four 16-bit registers in the Instruction Set Architecture (ISA) and the ALU to do a total of ten operations. Built the Data Memory using a built-in Logism RAM module. Wrote two MIPS functions for additional testing of the final CPU design.

BestRegards.co: Handwritten Thank You Cards Generator

October 2013 - Present

www.bestregards.co

- Co-founded a web service that automates handwritten thank you cards at the 2013 AngelHack Hackathon. Implemented a custom-built calculator in JQuery that informs users how much time they would save by using BestRegards from the number of attendees at their wedding. Used gumby, a responsive CSS framework, and developed our CSS and HTML skills. Made use of Firebase as a backend. Built an ecommerce platform and integrated Stripe's API to accept payments.

MIPS Instruction Set Emulator

October 2013

<https://github.com/tbehailu/MIPS-Simulator.git>

- Created an instruction interpreter for a subset of MIPS code. Provided the machinery to decode and execute a couple dozen MIPS instructions.

Co-occurrence in a large dataset

September 2013

https://tsion_behailu@bitbucket.org/tsion_behailu/co-occurrence-in-a-large-dataset.git

Goal: Given a target word, identify which words in a body of text are most closely related to it by ranking each unique word in the corpus by its co-occurrence rate, determined using a given co-occurrence rate algorithm, with the target word.

- Implemented MapReduce jobs in Java, which calculate co-occurrence of a target word in a large dataset.
- Ran MapReduce on several datasets stored on Amazon's Simple Storage Service (S3). Used Amazon's EC2 service, which rents virtual machines by the hour, by starting up a Hadoop cluster.

Bird Bounce: An iOS Mobile Game

October 2013 - Present

https://tsion_behailu@bitbucket.org/tsion_behailu/bounce.git

- Developed an iOS mobile game with a partner on Kobold2D, a 2D game framework. All graphics were done using Adobe Illustrator.

The Beauty of Knotted Sculptures

August 2013 - December 2013

<https://github.com/tbehailu/knots.git>

Mentor: Prof. Carlo Sequin, Electrical Engineering & Computer Science Department

- Analyzed and deformed selected knots from knot table into 2D diagrams in order to find symmetry and create 3D model with the use of AutoCAD as a research apprentice.

COURSEWORK

- Machine Learning
- Data Structures and Programming Methodology (*Java*)
- The Structure and Interpretation of Computer Programs (*Python/Scheme*) (*C Programming Language*)
- Introduction to Computer Programming for Scientists and Engineers (*Matlab*)
- Self-Paced C for Programmers
- Introduction to Digital Electronics
- Discrete Mathematics and Probability Theory
- Introduction to Design and Analysis (*Autodesk Inventor 3D CAD Software*)
- iOS Game Development DeCal

EXPERIENCE

Research Assistant/Marketing Director - *Institute for Law and Policy Planning, Berkeley, CA*

October 2011 - Present

- Shaped the marketing structure of ILPP to produce better results in both news searches and RFPs, ultimately leading to more jobs for the organization.

Intern - *University of Georgia, Griffin, GA*

June 2009 - July 2009

- Worked alongside a certified mentor in the Agricultural & Biotechnological Department at the University of Georgia (UGA) Griffin Campus and conducted research on evapo-transpiration of soybeans.

Square College Code Camp*January 2014*

One of twenty female CS students chosen from the U.S. and Canada to participate in a four-day immersion program at Square HQ. Completed workshops in CSS architecture, iOS Development, and Security Engineering.

Undergraduate Study Committee - L&S Computer Science Representative*September 2013 - Present*

Aid in the making of departmental decisions with the Computer Science Department faculty and staff as a representative for Letters & Science Computer Science students.

SWE - Member of Society of Women Engineers*August 2013 - Present***Cal N.E.R.D.S. - Researcher for Cal New Experiences for Research & Diversity in Science***March 2013 - Present***Cal Hawaii Dance Club - Performer***Dancer 2013 - Present***HUSA - Member of Horn of Africa Student Association***Dancer 2013 - Present*