

BRIAN OPPENHEIM

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tab=repositories (Most
projects are private.
Contact me and I'll add
you)



WORK EXPERIENCE

Software Developer 06/2017 - present
Salomon Research Group- Brown University Medical
School, Providence

- Built a high throughput pipeline in Java to transfer, clean, and analyze proteomic data that significantly increased critical data yield (10-40%), and opened the laboratory to running state of the art TMT experiments.
- Wrote an app to perform False Detection Rate filtering with NodeJS.
- Headed up several lab-wide projects and responsibly designed, created, tested, and implemented vital programs for a ~15 year old code base.

Research Assistant 01/2018 - present
Systems and Networking Group, Brown University
Dept. of Computer Science

- Working alongside Professor Theophilus Benson by creating novel deep learning models to power self-driving computer networks.
- Currently working on an LSTM-RNN and an A3C model to tackle both the topology of how networks are constructed, and how data is routed within them.

Fellow 12/2016 - 01/2017
Tel Aviv Global Tech Fellowship, Tel Aviv, Israel

- One of < 10% of students chosen to learn and apply machine learning/data analytics while working with startups in the Israeli tech ecosystem.
- Created a food waste management tool for Tel Aviv meetups.

Field Agent 09/2012 - 07/2017
King County Search and Rescue Association, Seattle,
U.S.A

- Provided dynamic healthcare to endangered civilians under taxing situations.
- Injuries ranged from fractured ankles to anaphylactic shock and cardiac arrest.

TECHNOLOGIES

Java C Python HTML/CSS/JS Go

TensorFlow Scala NodeJS

EDUCATION

Computer Science - GPA 3.7 09/2016 - 05/2020
Brown University, Providence, U.S.A

Relevant classes

- CS 0330: Computer Systems and Architecture (C/Assembly)
- CS 0320: Software Engineering (Large scale projects in Java/JS)
- CS 1380: Distributed Computer Systems (Go)
- CS 1470: Deep Learning (Python/Tensorflow)
- CS 1300: UI/UX (ReactJS/HTML/CSS)
- CS 170/180: Year long introduction to data structures/algorithms (Java, Scala, Ocaml).
- Maths: Discrete, Linear Algebra, Stats, Calculus.

PROJECTS

Bash Command Line

- Used C to write a working version of the bash command line that can navigate, perform builtin commands, run programs, track multiple jobs, reap, handle signals and file redirection, and more.

Dynamic Memory Allocation Package

- Built a working version of C's dynamic memory allocation package, including fully functional versions of malloc, free, and realloc.

XML Search Engine with Pagerank

- Built a search engine in Scala that parses a corpus of XML documents (in this case, wikipedia pages) and returns up to 10 of the most relevant docs based on a query.

Sequence to Sequence Machine Translation

- Used an RNN to construct a seq2seq machine translation model that can translate French sentences to English with roughly 70% word per word accuracy.

AWARDS

- 1st Place, Visual Design at Hack @ Brown
- Top Responder, King County Explorer Search and Rescue
- Eagle Scout