Shalom Yiblet

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Education

Carnegie Mellon University
BS in Computer Science
Minor in Machine Learning
Graduation Date: May 2019
GPA: 3.86

Courses TA'd

Algorithm Design and Analysis
Compiler Design

Coursework

Great Theoretical Ideas in Computer Science
Introduction to Machine Learning
Reinforcement Learning
Modern Regression

Programming Languages

Haskell
Python
HTML / CSS / Javascript
C++/ C
Java
PHP / Hack

Natural Languages

English (native)
Amharic (native)

Awards

National Achievement Scholar
Virginia Aerospace Science and Technology Scholar
International Baccalaureate Diploma
CMU Presidential Scholar

Competitions

HackCMU | Google Sponsor Prize
Algorithms With A Purpose | best freshman
TartanHacks | Organizer
CMU Malloclab | Most Efficient Implementation & Overall Best Malloc Implementation

Work Experience

Research Assistant | CMU Machine Learning Department
Dec 2017 - Present | Pittsburgh, PA
Implemented a Bayesian optimization framework that greatly reduced the cost of high dimensionality. Developed a fast approximation algorithm for inter-related groupings of dimensions in a high dimensional dataset.

Technical Program Manager Intern | Facebook
May 2018 – Aug 2018 | Menlo Park, CA
Lead the development of a dashboard that displayed the holistic impact that any employee had on company-wide efficiency metrics for any given time range.
Planned, and developed a data pipeline that evaluated the operational effectiveness of the efficiency team week over week.

Software Engineer Intern | Facebook
May 2017 - August 2017 | Menlo Park CA
Researched and Developed a completely novel type of random forest spam classifier used to categorize a specific type spam from good content on the platform. Collaborated across multiple teams in Facebook to build out improvements across all of Facebook's existing spam classifiers by adding hundreds of new types of features.

Director of Technology | Scottylabs
May 2016 – April 2018 | Pittsburg PA
Trained and directed groups of people to work on numerous Scottylabs projects.
Directed technical projects in collaboration with students, faculty, and other organizations for the greater CMU community.

Research Assistant | CMU Computational Biology Department
August 2016 – December 2016 | Pittsburgh PA
Developed convolutional neural networks in a research project lead by Professor Min Xu for new method to recognize and segment different three-dimensional images of organelles.

Facebook Android Engineer Intern | Facebook
June 2016 - August 2016 | Menlo Park CA
Developed an android app for people to asynchronously develop music with their friends.
Built both the backend music hosting service and designed and implemented the frontend interface.

Machine Learning Research

Deep Generative Video Compression
June 2018 – Present
Researched and developed an algorithm that combines AI algorithms (encoder-decoder long short-term networks) with video compression to develop a system that greatly reduces the file size of videos.

Learnable Distance Functions in Large Discrete Action Spaces
Feb 2018 – May 2018
Developed a reinforcement learning algorithm that could learn distance embeddings for games where the action space is in the order of thousands. The algorithm could therefore make effective decisions in games with a huge choice of actions.

Projects

Resource-Aware ML Compiler
March - May 2017 | link: raml.co
Updated the parser to type system layer in RAML, an Ocaml Compiler that can predict the worst-case complexity of functions at compile time.

Conditional Generative Adversarial Network
March - May 2017 | github: github.com/himat/BuildingVision
Collaborated in a small group of four to research and architect a generative adversarial neural network that can generate realistic images of objects based on sketches. Developed the convolutional neural network layer of the architecture as well as setup methods to quantify the effectiveness of the algorithm.