

Sam Fazel-Sarjui

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EDUCATION

Carnegie Mellon University

College of Engineering

Bachelor of Science, Electrical & Computer Engineering; Minor, Robotics

- **Cumulative GPA:** 3.05 / 4.0 | **Major GPA:** 3.00 / 4.0
- **Coursework:** Intro Computer Systems, Principles of Imperative Computation, Structures of Digital Systems and Design, Signals and Systems, Mathematical Foundations of Electrical Engineering, Fundamentals of Programming and Computer Science, Probability Theory and Random Processes, Deep Reinforcement Learning Research

Pittsburgh, Pennsylvania

Sep 2015 - May 2019

PROFESSIONAL EXPERIENCE

Trading Technologies

Software Engineer, Global Operations Division, Monitoring Team

Chicago, Illinois

May 2017 – Aug 2017

- Implemented chef/ruby code to manage the vast deployment across TT's global datacenter infrastructure
- Developed python scripts to identify system issues through Icinga deployment
 - Created scripts for SSH checks, LDAP querying and replication checks, CPU Usage checks, etc.
- Utilized Splunk for log collection and Graphite for metrics
 - Implemented an intermediate forwarder in Splunk to filter and compress data being sent through the global backbone
 - Implemented an intermediate relay in Graphite to create packet captures and analyze bandwidth usage
- Learned how TT's resources are tracked in Amazon, including EC2 instances and databases such as Dynamo, Amazon, and MySQL
- Created Splunk alerts and Seyren alerts in Grafana based on HA Proxy request rates to detect DDOS attacks

Carnegie Mellon University Researcher

Deep Reinforcement Learning, ECE Department, Visual Dialog

Pittsburgh, Pennsylvania

August 2017 - Present

- Collaborating with Professor Jose Moura and PhD candidate, Satwik Kottur on a project called Visual Dialog
- Constructing an AI agent to hold a meaningful dialog with humans in natural, conversational language about visual content

Carnegie Mellon Teaching Assistant

15-110, Principles of Computing, School of Computer Science

Pittsburgh, Pennsylvania

Fall 2017

- Will hold weekly recitations and office hours
- Will grade written and programming assignments weekly
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Green Catapult, Inc.

Software Developer

Manhattan, New York

May 2016- Aug 2016

- Developed an app for the auditioning process, utilizing Meteor, a JavaScript framework for mobile and web applications
- Integrated React, Facebook's frontend rendering library, into Meteor
- Facilitated in the software development life cycle (SDLC) of multiple tech projects

PROJECTS

FPGA Serial Communication Protocol

- Programmed a serial communication protocol using System Verilog on an FPGA board to decode a string transmitted through a serial cable

Pittsburgh, Pennsylvania

Kinect Game

- Developed an aviation game in python using Microsoft Kinect 2 SDK
- Utilized the PyKinect module to integrate the game with the body tracking features of the Kinect
- The objective of the game is to fly through the rings by moving hand positions

Pittsburgh, Pennsylvania

Proximity Sensing LED Board

Build 18 Competition

Pittsburgh, Pennsylvania

- Collaborated with 3 students to create a proximity sensing LED board using phot-resistors, resistors, IR LEDs, and LEDs

LEADERSHIP EXPERIENCE

Carnegie Mellon Men's Varsity Soccer

Midfielder

Pittsburgh, Pennsylvania

Aug 2015 – Present

- Commit 25 hours a week to training, film review, and matches
- Nationally ranked NCAA team and qualified for NCAA tournament in both 2015 and 2016

Captaincy

High School Soccer

Bernardsville, New Jersey

Aug 2013 – Dec 2014

- 2-time captain of NJ state champion high school team

SKILLS & INTERESTS

Programming Languages: Python, C, Java, Git, System Verilog, JavaScript, HTML

Software: Chef, Splunk, Graphite, Icinga, CAD, Meteor, Solidworks

Spoken Languages: English (fluent), Farsi (fluent), French (proficient)

Interests: AI, Machine Learning, Table Tennis, Trading, Teaching