Muhammad "Osama" Sakhi

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EDUCATION

Georgia Institute of Technology   *Atlanta, GA*
- **Expected Graduation:** December 2019
- **Degree:** Master of Science in Computational Science & Engineering
- **Coursework:** Computer Vision, Computational Data Analysis, Algorithms, Quantum Mechanics

Georgia Institute of Technology   *Atlanta, GA*
- **Graduation:** May 2017
- **Degree:** Bachelor of Science in Computer Science
- **Concentrations:** Intelligence and Devices
- **GPA:** 3.86
- **Awards/Honors:** Dean's List, Faculty Honors, Asian and Pacific Islander Scholarship
- **Coursework:** Machine Learning, Natural Language Processing, Introduction to Artificial Intelligence, Design and Analysis of Algorithms, Applied Combinatorics, Robotics and Perception, Computer Networking

EXPERIENCE

Instructor, DukeTIP   *Jun. 2018 – Jul. 2018*
- Taught a total of 40 students for four weeks across two courses: Modern Programming and Artificial Intelligence
- Designed syllabi, conducted parent-teacher conferences, crafted assignments spanning five core topics: Fundamentals of Python Programming, Web Development, Pathfinding, Machine Learning, Natural Language Processing

Software Engineer, Pindrop   *Jun. 2017 – Jun. 2018*
- Automated a data collection task that consumes 90 days' worth of data for researchers to create adaptive fraud detection models
- Optimized memory consumption for a new product to use 75% less memory than previous implementations
- Created new framework for continuously deployment of fraud detection models to production systems
- Migrated database records from Postgres to Redis and used custom key-value encoding to optimize lookup times

Teaching Assistant for Introduction to Artificial Intelligence, Georgia Tech   *Aug. 2016 – Dec. 2016*
- Debugged assignments with students, reviewed course material during office hours, graded course exams

Software Engineering Intern, Pindrop   *May 2016 – Aug. 2016*
- Designed database performance experiment to help determine which relational database scaled appropriately for the expected load of 1 million requests/day
- Helped re-architect existing monolithic backend API server with smaller, independent microservices for easier integration with Kubernetes

Associate Developer IT & Intern IT, The Home Depot   *Mar. 2015 – Aug. 2015*
- Designed path planning algorithm for autonomous floor cleaning bot to traverse store aisles and return to charging station
- Utilized Computer Vision and Optical Character Recognition libraries to scrape driver's license information from images

PROJECTS & RESEARCH

Computing Betweenness Centrality for Streaming Graphs, Dr. Oded Green, Georgia Tech   *Aug. 2016 – May 2017*
- Ported algorithm for computation of betweenness centrality onto NVIDIA GPUs using cuStinger framework

Humor Genome Project, Georgia Tech   *Aug. 2015 – Dec. 2016*
- Developed web application that crawls Reddit pages for jokes and recommends jokes for users to view and rate

EXTRACURRICULARS

Let's Try This Improv Troupe, Member   *Aug. 2018 – Present*
- Collaborated with other troupe members in improv workshops to create creative, imaginative stories and performances

SKILLS

- **Coding**: Python, Golang, Java, C, C++, MATLab, MySQL, MongoDB, JavaScript, HTML, CSS
- **Software**: AWS, Docker, Kubernetes, Autodesk Inventor, Photoshop
- **Frameworks/Tools:** Scikit-Learn, Numpy, Pandas, PyTorch, Flask, OpenCV, Spark, Arduino, Android