Belal M. K. Said

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Education

Rutgers University-New Brunswick **09/2015 - 05/2019**

BSc in Computer Science and Applied Science Eng
Dean's List (every semester)
GPA: 3.86/4.00

Relevant Coursework: Data Structures, Computer Architecture, Discrete Structures, Probability Theory, Artificial Intelligence, Circuits

Technical Skills

Proficient: C/C++, Python (numpy, pandas), Java, Javascript (Node.Js), C# (ASP.Net, WPF), Matlab. **Familiar:** PHP, Go, Flask, CUDA, SQL (MySQL, MSSQL). **Technologies:** Git, Bash, Linux, Windows, Visual Studio, Eclipse

Experience

AQR Capital - Software Engineer Intern - Greenwich, CT **06/2018 - 08/2018**

— Implemented an email analyzer system that uses text analysis and Naive Bayes to determine critical client emails
— Built a data consolidator that synchronizes front office and back office trading data using a simple versioning system

Facebook - Software Engineer Intern - Menlo Park, CA **01/2018 - 03/2018**

— Implemented a python static analyzer that constructs call graphs using AST to perform function call analysis
— Built a python code modifier that uses static analysis data to detect synchronous bottlenecks and migrate them to async
— Helped design Facebook-wide python programming standards and best practices

Colgate-Palmolive - Software Engineer Intern - Piscataway, NJ **06/2017 - 11/2017**

— Built and designed OMNIPAL, an all-knowing web application that uses natural language to expose multiple data APIs
— Built a RESTful API in Node.Js to standardize voice command matching using MonogoDB as the NoSQL database
— Designed a library from scratch in javascript that generates simple machine learning models for OMNIPAL

SteerSuite under *Professor Mubbasir Kapadia* **- Research Assistant - New Brunswick, NJ** **06/2016 - 08/2016**

— Coordinated with a team of PhD students to optimize SteerSuite, a crowd simulator written in C++
— Reduced simulation time by 17% by implementing bounding boxes and Dynamic Bounding Volume Hierarchies

Projects

Pyan4 (Python 3.6) **01/2018 - Present**

— A python static analyzer developed while at Instagram based on Pyan3 by David Fraser
— Improved over Pyan3 performance by ~240% using hashing and parallelization

Speed Prediction (Matlab/Caffe) - github.com/belalmksaid/speed_prediction **07/2017 - 12/2017**

— Predicted instantaneous speed of a moving car from a live dashcam video within ± 1 mile accuracy by using Farneback optical flow, a deep learning network, and exponential moving average

PacmanAI Lab (Javascript) - github.com/belalmksaid/PacmanAILab **01/2017 - 08/2017**

— Implemented genetic algorithm with simple neural networks to teach an AI how to play pacman in javascript
— Built a simple framework from scratch to emulate multithreaded applications to avoid freezing the browser

Internet of Things (Javascript/Node.Js) - github.com/belalmksaid/ioi **01/2014 - 03/2017**

— Connected home electronic devices such as lamps, a fridge, a microwave, and a minivan to the internet using electrical IMPs and mapped them to a NodeJs server
— **Won Internet of Things award from Intel at PennApps 2014**

Extracurriculars

IEEE - PacBot Team Captain - **github.com/belalmksaid/PacBotCode** **10/2015 - Present**

— Created an algorithm for the bot to navigate a maze and avoid the ghosts, optimized in Assembly to run on teensyduino. The robot was designed using a custom PCB circuit and a 3D printed body
— **Won first place at Harvard PacBot Competition 2017**