Belal M. K. Said

belalmksaid@gmail.com (732) 372-1253 Edison, NJ 08820
github.com/belalmksaid linkedin.com/in/belalmsaid belalsaid.com

Education

Rutgers University-New Brunswick   **09/2015 - 05/2019**
Bachelors of Science in Computer Science   **Relevant Coursework:** Data Structures, Computer
Dean's List (every semester)   Architecture, Software Methodology, Discrete Structures,
GPA: 3.83/4.00   Probability Theory, Artificial Intelligence, Circuits

Technical Skills

— C/C++, Java, Javascript, Python, C#, Matlab, PHP   — Git, Visual Studio, Eclipse, TesnorFlow, OpenCV
— HTML/ CSS, Node.Js, MySQL, JQuery, MongoDB   — Linux, Windows, Android

Experience

Colgate-Palmolive - Software Engineering Intern - Piscataway, NJ   **06/2017 - Present**
— 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 with MonogoDB as the NoSQL database
— Designed a library from scratch in javascript that generates simple machine learning models for OMNIPAL

PRACSYS under *Professor Kostas Bekris* **- Research Assistant - New Brunswick, NJ**   **06/2017 - Present**
— Designed a path planner in C++ for Baxter's arm, a multi-jointed robotic arm with seven degrees of freedom, using
  Ceres Solver to solve the constraint system and then using A* to find the optimal action-path

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
— Designed and coded a C# plugin to incorporate SteerSuite into Autodesk Revit and make it user friendly

AllState Insurance - Data Analysis Intern - Edison, NJ   **06/2014 - 09/2014**
— Designed an algorithm in python that uses decision trees to determine which customers are likely to switch
— The algorithm uses a custom score to sort potential customers and optimize with feedback from customer service

Projects

Speed Prediction - github.com/belalmksaid/speed_prediction   **07/2017 - Present**
— 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 using Matlab

PacmanAI Lab - github.com/belalmksaid/PacmanAILab   **07/2017 - Present**
— Implemented genetic algorithms 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 - 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 Node.Js server
— **Won Internet of Things award from Intel at PennApps 2014**

TrackerAPI - github.com/belalmksaid/TrackerAPI   **07/2014 - 08/2014**
— Wrote a platform in Node.Js that lets users create custom APIs for dynamic data on a website of the user's choice
— **Won first place at CodeDay NY 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 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**

International Sanitation Organization - internationalsanitation.org   **07/2013 - Present**
— Helped found and fundraise for ISO, a legal 501c3 certified non-governmental organization, which has collaborated
  with UN recognized organizations to bring fresh water to thousands of people in Ghana