

# MANJINDER SINGH



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New York



msingh789



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Software Engineer who is a fast learner, hardworking and a team player with a creative mind set for problem solving. My knowledge expands further to end user support, network topologies, IT operations, front/back end development. I enjoy opportunities that require increasing levels of responsibility and professional growth. Recognized as a skilled leader who identifies high-potential opportunities and my superior focus and attention to detail combined with my knowledge of HTML5, CSS, Javascript, Ruby, Ruby on Rails, jQuery, SQLite/PostgreSQL makes me an ideal team member. I am able to prioritize the ability to adapt and address challenges quickly and creatively.

## Skills

### LANGUAGES & FRAMEWORKS

Ruby

Ruby on Rails

Javascript

jQuery

Ajax

HTML5

CSS

Sinatra

React

C++

C#

Assembly

### METHODOLOGIES

Object Oriented Development

Test Driven Development

Agile Development

### DB, TESTING & VERSION CONTROL

PostgreSQL

SQLite

ActiveRecord

RSpec

Git

GitHub

Arduino

## Education

New York City College of Technology  
BTECH Computer Engineering 2019

Jan. 2017 to Current

New York City College of Technology  
AAS Electromechanical Engineering 2017

Aug. 2013 to Jan. 2017

## Educational Background

### Computer Engineering

- Microcomputer architecture and the basic concepts used in the Personal Computer (PC) using C programming language.
- Assembly language programs to utilize and gain insight into machine level operations.
- Applications of principles of electrical circuit analysis to the solution of practical network problems, with emphasis on steady-state AC Circuits.
- Using Analog and digital techniques to take into account standards, precision, accuracy and sensitivity in the data-acquisition process.
- Programming concepts and software development techniques for computer controlled systems.
- Technologies, protocols, and techniques used to connect a computer network with other networks through the use of gateways.
- Local Area Networks (LAN) and Wide Area Networks (WAN) implementation, wireless networks implementation, network security, advanced switching and routing configuration, advanced TCP/IP configuration, and network management.

### Electromechanical Engineering

- Understanding electrical circuits, IC chips and their implementations.
- Coding with python and C/C++.
- Diagnosing/troubleshooting computer hardware and software issues.
- Creating 3-Dimensional designs using computer aided drafting.
- Developing embedded systems.
- Electrical manufacturing processes
- Developing IOT devices
- Understanding of mechanical hardware aspects and gear operations within PC.
- Advanced mechanics of pneumatic and hydraulic systems.
- Setting up multipoint communications.
- Study of OSI and TCP/IP models, data transmissions, transmission media, network topologies, network cabling system, IP addressing, TCP/IP suite, local area networks (LANs), wide area networks (WANs), wireless network, and network security.

## Employment

### Freelance Web Developer/Designer

Web Developer/Designer

Mar. 2017 to Current

- Creating Web Sites for clients using HTML, CSS, Javascript, Ruby on Rails, jQuery.
- Used the latest features of bootstrap for a clean UX experience
- Managed client relationships, and finances and created timeline for projects

## Projects

### Mood Lamp

- Using the ESP32 micro-controller with onboard bluetooth and WiFi we developed an IOT device.
- Using Arduino IDE and C++ computer language.
- Developed a code to communicate with the micro-controller via WiFi.
- Implementation of RGB LEDs parameters and scopes.
- Implementation of IOS APP communication via WiFi.
- Implementation of mood sensors.
- Implementation of APP lights/brightness/ONOFF controller
- Development of hardware design via 3D printing.
- IOT Device technologies making it user friendly and consumer cost effective.

### Lava-Typers

- Lava-typers is a javascript game that allows users to practice and improve their typing speed and accuracy through a fun and competitive game.
- This website was designed using Ruby on Rails, CSS, Bootstrap, Javascript, jQuery and postgresSQL.
- Set up database schema design and help implement React to front end.

### Holiday Show Pi

- Using Linux operated device Raspberry Pi
- Implementation of hardware design techniques using a breadboard, male to male/female jumpers, and Christmas lights.
- Implementation of software code for proper in-device functionality.
- Implementation of syncing methods and parameterization.
- Implementation of brightness tools to user preference/friendliness.
- Strategic NPV solution cost effective design to result in higher revenue for holiday light shows.

# MANJINDER SINGH

## Awards

New York City College of Technology: National Honors Society of Leadership & Success

Aug. 2017

## Activities

### Robotics Technology

- Geometric configurations and classifications of robots
- Drive components (electric, hydraulic, pneumatic)
- Computer controls and interfacing, sensors
- Data acquisition/handling and conversion

### Triathlon Hackathon

- Joining in on various developers to make IoT devices and to demonstrate the basic techniques of using a microprocessor or micro controller platform for IoT applications.

