BHARGAVA UKKALAM

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EDUCATION

Stony Brook, NY	**Stony Brook University**	**Dec 2018(Expected)**

- Master's Degree in Computer Engineering   **GPA-3.52**

    Relevant coursework : Analysis of Algorithms, Data Structures and Algorithms in Java, Mobile Sensing Systems and Applications, Mobile Cloud Computing, Computer Networks, Pattern Recognition

    Teaching Assistant : Computer Techniques for Electronic design. **(Data Structures and Algorithms, OOPs concepts)**

Bengaluru, India	**PES Institute of Technology**	**Sep 2011-May 2015**

- Bachelor's Degree in Electronics and Communication

WORK EXPERIENCE

Software Developer Intern(R&D)	**IPC Systems, New Jersey**	**Jun 2018-Aug 2018**

Key Skills : *Python, Pandas, NumPy, Matplotlib, Jupyter, SQL, Flask, Node.js, AngularJS, REST API, Agile*

- Developed Python applications to analyse and visualise data on revenue generated by IPC's product-Unigy360.
- Designed and developed Python scripts to fetch and analyse the relevant data from CSV, excel files and export data to SQL and perform data visualization using Python libraries(NumPy, Pandas, Matplotlib) and Jupyter.
- Designed database tables, stored procedures to store and process the data from the Python scripts.
- Developed a Python application to automate the process of dialing into outlook conference calls from Unigy360 application.
- Developed REST API's using Flask and Node.js with CRUD functionality and integrate it with front end application.

Network Engineer	**ERICSSON, India**	**Oct 2015-Apr 2017**

Key Skills : *SQL, Python, Pandas, JavaScript, HTML, CSS*

- Performed data analytics on large sets of detailed RAN (3G/4G LTE) excel data using Python and SQL and analyse error patterns.
- Developed Python scripts to extract data from bulk excel network data which reduced error report generation time by 2 hours.
- Designed database tables in SQL to segregate and store relevant 3G/4G LTE sites and network data.
- Developed a web application using HTML, CSS and JavaScript for monitoring carriers, logging errors and downsites.
- Optimized in-application SQL statements and queries used for front end application which improved query performance.

PROJECTS – ⓞ github.com/bhargavaukkalam

Unix File System with B-Trees: *(Java, Data Structures and Algorithms)*	**May 2018-Jul 2018**

- Designed and developed an Unix file system that allows several file/directory operations and stores metadata.
- Implemented B-Trees to store specified number of files and enable efficient insertion, deletion, quick access to files/directories.
- Got acquainted with file system concepts, data structures and implemented Object Oriented Programming concepts.

Design and Build a Database Engine: *(Java, SQL, Data Structures and Algorithms)*	**Jul 2018-Aug 2018**

- Designed and implemented principles involved in Database engine and Create, Read, Update, Delete(CRUD) functionalities.
- Designed and built record file storage, table indexing and paged file manager.
- Learnt the technicalities and concepts of Database Management Systems (DBMS) through this project.

ChatBot: *(Dialogflow, Node.js, SQL, Heroku)*	**Feb 2018-May 2018**

- Developed a customized chatbot that can answer frequently asked questions(FAQ's) and integrated it to Facebook messenger.
- Used Dialogflow to process Natural language , train data and Node.js for integrating the bot with gmail.
- Designed SQL database for storing application data and hosted the data and bot on heroku cloud platform.

Amazon clone- Shopping website: *(Node.js, MongoDB, Elasticsearch, EJS, mLab)*	**Sep 2017-Dec 2017**

- Designed and developed an e-commerce web application with backend Node.js server and passport.js for authentication.
- Used MongoDB to store application data and host the data on mLab cloud database service.

Bitcoin Cryptocurrency market – Data Analysis: *(Python, Jupyter)*	**Jan 2018-Mar 2018**

- Aggregated and consolidated data from the coinmarketAPI using Python to study the general trend of Cryptocurrency market.
- Compared the Top 10 Cryptocurrency market capitilization and analysed daily, weekly market fluctuation and winners and losers.

Spotify Playlist Generator: *(ReactJS, HTML, CSS, JavaScript, Spotify API)*	**Oct 2017-Dec 2017**

- Designed and developed a React web application called Jamming which allows user to search Spotify library for songs.
- Created a custom playlist which allows users to save playlist to their Spotify account and access it.

TECHNICAL SKILLS

Programming/Scripting languages/Databases: Java, Python, C++, JavaScript, SQL, MongoDB, HTML, CSS
Frameworks/IDE/Editors: Flask, AngularJS, Node.js, ReactJS, Eclipse, Visual Studio, Android Studio, Jupyter, Heroku, MS SQL Server
Operating systems/Version control systems: Microsoft Windows, Mac OS, Linux, GIT