



Dhilip Kumar

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Professional Expertise

Self-directed and motivated problem solver with fluency in Python, NodeJS, Angular, C# and Java with additional knowledge of Data Engineering, Data Analytics and Machine learning techniques. Also experienced in building dynamic chatbots using Dialogflow framework.



Education

2019-01 -
2020-02

Graduate Diploma in Systems Analysis

Institute of Systems Science, National University of Singapore – Singapore.

- Graduated with 4.13 GPA.

2012-10 -
2016-06

Bachelor of Engineering: Mechanical Engineering

University College of Engineering, BIT Campus - TRICHY

- Graduated with 8.13 GPA
- Received Gold medal for academic excellence of holding 1st rank in Department of Mechanical and Automobile studies
- Dean's Honours List Year-2016



Work History

2019-09 -
2020-01

Intern

A*STAR - SIMTECH, Singapore.

1. Designed and Developed **Name Card Scanner for Auto Populating Web-form from Images** using Python, OpenCv, pytesseract(OCR), spaCy(NLP) and mongoDB.

- Deployed a 3-Tier web with Angular Frontend and Flask API Server backed by mongoDB.
- Applied regex to extract website, email, contact numbers. Used Named Entity Recognition module from Spacy NLP to extract Names from raw text

Demo: <http://bit.ly/namecardscanner>

2. Built a **Real Time Dashboard** using Angular and Nodejs for capturing the order status processed by an Automated Robotic Arm for customised order fulfilment.

- Demonstrated the Dashboard at ITAP (Industrial Transformation ASIA-PACIFIC), a leading trade event for Industry 4.0!



Contact

Address

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Phone

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Git

github.com/DhilipBinny

Site

<https://www.dhilip.ml>



Skills

Databases : My SQL, SQLite, Ms SQL, PostgreSQL, Mongo DB, Firebase



Web Development : Html 5, Razor, Thymeleaf, Angular



IDE's : Visual Studio, Eclipse, Jupyter Notebook, Visual Studio Code, Colab



Frameworks : Python Flask, Spring, ASP.net MVC 5, DialogFlow



Cloud : AWS EC2, RDS, Azure, Heroku, Digital Ocean.



Web Scraping : Selenium, BeautifulSoup.



Data Analysis : NumPy, Pandas.



Data Visualisation : Matplotlib, Seaborn, Plotly.



- Developed a Nodejs based Micro-service to aggregate data from two separate databases.

3. Designed and Developed a Smart **Event Management System** using Angular, Nodejs and Mongo DB.

- A whole functional web Application with simplified event creation and registration process, event notifications, self-check-in and QR-Code badge printing.
- Built a generic form builder from a JSON Object for Event Surveys.
- Took Part in Design and Implementation of complete SDLC, Integration and Testing.

Machine Learning : Sklearn, keras. (supervised and unsupervised model building)



Containers : Docker



2016-07 -
2017-07

Field Officer

INTERNATIONAL TRACTORS LIMITED - SONALIKA, TamilNadu.

- Increased customer retention and satisfaction by closely monitored team member performance and assessing problematic practices.



Project Experience

1. Built and deployed **TASK LIST App**, a web application integrated with google sign-in and firebase authentication using Angular, NodeJS and mongoDB.

- Developed multi-container Dockerized application with 3 Containers as follows, Angular Frontend Container, Nodejs backend container and MongoDB Database container.
- Adopted 12 Factor App principles for the containerized apps and deployed in Digital Ocean.
- **Live App:** <http://bit.ly/todolist-firebaseauth>

2. Developed a web app, chatbot and voicebot for finding **SG Bus Timings**.

- Built a web application, with **Angular** frontend and **Flask** backend which consumes the LTA DataMall Rest API for real-time bus timings given a bus stop code or the users geo coordinates.
- Added a telegram chatbot using **botogram** in Python, which is running in AWS Ec2 Instance.
- Also extended the app using **Dialogflow** voice agent, as a **voice bot** integrated with Google Assistant.
- **Live App:** <http://bit.ly/sg-bus-timings>
- **Telegram Bot:** <http://bit.ly/telegrambot-sgbus>

3. Designed a functional **Leave Application Processing System** (Java, Spring Boot and MySQL)

- Developed a Leave application System with functionality such as Admin Panel, Manager and Employee Dashboard as a part of GDipSA NUS ISS Program group project.

- Took Part in different phases such as Design, Implementation and Integration of the APP Development Lifecycle.
- Used Version control software Git to solve code conflicts issue when working with Group of 4 members.
- Played as a developer role in the team.

4. Developed a Shopping Cart and a Tour Booking System (Asp.net Mvc5, MsSQL)

- Built a Shopping Cart App with Asp.net Mvc5, Razor, MsSQL and using OOP paradigm as a part of GDipSA NUS ISS Program group project.
- Took part in design and implementation of complete SDLC.
- Played as a Team Leader and Integrator role, in which I set examples coding styles for rest of the team members to follow. Once features are developed, managed to integrate the parts developed by the peers and debug issues as well.

5. Developed a Google Assistant agent to control state of LEDs monitored by a Raspberry PI, through voice as well as chat.

- App architecture includes Firebase database and two python process one inside raspberry and the other running as Heroku App Service.
- Python based Dialogflow bot backend receives the request from user and updates the firebase table. Another python client running on Raspberry PI syncs data with the real-time firebase database, which then controls the LED bulbs by propagating the change event triggered by the user.
- Managed to overcome challenges involved in setting up Https based backend for Dialogflow to route the fulfilment Request. Also, added a simple vanilla HTML, CSS, JS based web frontend for the App.



Certifications

- 2019-07 ● Python Programmer DATACAMP
URL: <http://bit.ly/2QuSCOT>
- 2019-07 ● Data Analyst with Python DATACAMP
URL: <http://bit.ly/2qofB3x>
- 2019-08 ● Data Scientist with Python DATACAMP
URL: <http://bit.ly/35hieDn>
- 2018-08 ● Python for Everybody COURSERA
URL: <http://bit.ly/2rTAjsF>