Sindhu Harish

Software Engineer II

Bangalore, Karnataka, India, 560045

+919686639905

sindhu.harish@philips.com

linkedin.com/in/sindhu-harish-306224125

https://sindhuharish.github.io/

https://github.com/sindhuharish

Seasoned Senior Software Engineer adept at leading cross-functional teams. Remarkable relationship building, decision making and communication skills. Known for best-in-class development and collaboration.

💼 Work History

2019-07 - Current

Software Engineer II

Philips, Bangalore, Karnataka, India

- Working as a Full Stack Developer in the CTO Market innovation Ventures R&D group at Philips India Limited. Involved in multiple healthcare projects with cutting edge technologies.
- Collaborated with team of 8 to develop a teleradiology platform to avoid dependency on third party tool using Google healthcare SDK and took complete ownership for setting up continuous integration and deployment for the same to ensure smooth onboarding.
- Worked as a Data Scientist for a project involving machine learning and data modeling - document intelligence for medical classification and information extraction to automate processing of 500k medical claim per year, cutting down costs by 90%. https://github.com/sindhuharish/sindhuharish.github.io/blob/master/files/DOCIE_Healthcare.pdf
- Developed a 'Patient Scheduler' application using ReactJS, RestAPIs and Spring Boot Java allowing patients to book appointments for scans such as CT, MRI, X-Ray based on available slots, reducing patients wait time by 3 fold and enabling feasibility.
- Designed and implemented a back-end micro service framework to standardize API calls for China specific downstream nutrition applications, thus enabling de facto norm across Philips China.
- Implemented and Optimized elastic search index analyzers for efficient persistence and retrieval of data. Reduced average response time from 9 seconds to 2 seconds per request.
- Managed a cross-functional R&D team in India and China. Received the best employee award for the project 'Health Suite China' in the category 'taking ownership to deliver fast'.

2016-07 - 2019-07

Senior Software Engineer

Mindtree Limited (Chief Technology Office), Bangalore, Karnataka, India

- Worked as a full stack developer for COE (center of excellence) R&D group at Mindtree Limited.
- Designed and implemented a '**Product recommendation system using Image Recognition**' for Procter & Gamble grooming products right from requirement gathering, training the model and developing a website enhancing customer experience and engagement with P&G, thus boosting the profit margin by 3%.

- Analyzed industry standards for code quality guidelines and took initiative to bring in the Test Driven Development approach for the project - '**SITA Departure Control System**', reducing the bugs and vulnerabilities from 40% to 20%.
- Developed a JMS (Java Message Service) mock framework for testing automation during the server down time, thus enabling smooth testing by reducing overall testing and delivery time by 3-fold.
- Collaborated with a group of 10 to a micro-service architecture in Java, Spring boot and Hibernate to develop API's for SITA - an airline departure control system.

2016-07 - 2016-10

Campus Mind, Internship

Mindtree Limited, Bhubaneshwar, Odisha, India

- Trained holistically in all domains of technology.
- Worked with a team of 8 campus minds. Designed and developed an application for tracking waste management

🎓 Education

2012-08 - 2016-07

Bachelor of Engineering: Computer Science And Engineering

University Visvesvaraya College Of Engineering - Bangalore, Karnataka, India

- Graduated with GPA 8.25/10.0

2007-06 - 2020-04

SSC

Govt Girls High School - Tiptur, Karnataka, India

- Graduated with GPA 92.96/100
- Graduated as second topper of the class

2010-06 - 2012-04

HSC

Govt PU College - Tiptur, Karnataka, India

- Graduated with GPA 91/100

✦ Technical Skills

Machine Learning : Python, R, Machine Learning, Deep Learning, CNN, RNN, LSTM, BERT, GAN, Spark ML, NLP, PySpark, Keras, Tensorflow, Pytorch, scikit-learn, KNN, K-Means, Predictive Analytics, Statistical Modeling, Knowledge Graphs, Microsoft Excel, Tableau, Power BI
Big Data : Neo4j Graph Database, Big Data, Hadoop, HBase, Apache Spark, Hive, Cloudera CDH, Airflow, SQL, NoSQL, Data Warehousing, Relational databases, Elastic Search, Git, Google Analytics, GCP
Software: RestAPI, AWS, Spring Boot, Flask, Docker, UNIX, Java, C, HTML, CSS, Computer Networks, ReactJS, DevOps, Jenkins, Docker, Kubernetes.
Soft Skills: Analytical Thinking, Communication Skills, Data Analysis, FHIR, Dicom Standards, HL7, Architectural Design and Documentation, Scrum Master, Agile Methodologies.

✦ Project Details

- **Patient Scheduler – Scheduling Patient Imaging** - This application enables the patient to schedule their scan which avoids them wasting time while booking over the telephone. Stratify

patients and engage with them for pre scan procedures. Notify patients before and after their scans. RIS (Radiology Information System) staff can spend time effectively on their core work rather than scheduling. Application helps to optimize resources effectively to help lower the cost of care.

- **Document Classification and Information Extraction -** A cost-effective and scalable end-to end Document Intelligence pipeline. Application processes around 20000 claims and medical bills per day reducing workforce cost by 300,000$ a year. Designed an Ensemble VGG Region based Convolution plus Text Deep Learning Model for Document Classification and Graph Neural Network coupled with Sequence Model for Information Extraction. Pretrained the model on RVL Dataset and fine-tuned on medical documents (8 Classes) with an accuracy of 98%. Automated the processing of 500k medical claim per year, cutting down costs by 95%.

- **RaaS (Reading as a service) – Software DICOM Gateway** - A tele-radiology platform to replace the third party paid tool. To avoid cost and dependency on third party tool, developed a software gateway – '**DICOM Gateway'** for Hospitals. It shall just convert DIMSE (C-STORE) to DICOMWeb (STOW-RS) and send to "Software-Based DICOM Gateway". Then "Software-Based Gateway" converts the DICOMWeb (STOW-RS) to DIMSE (C-STORE) to "Carestream gateway RACK". Then "Carestream gateway RACK" forwards the DICOM to "Carestream PACS".

- **Product recommender Using Image Recognition** – An application to recommend the set of Procter & Gamble products such as trimmer, skin care products to consumers based on the selfie or image uploaded by them. This is to achieve more consumer engagement helping consumers to choose right products for their skin tone and beard type.

- **Health Suite China (HSC) – Nutrition App for Health Management -** The target is to extract and standardize the APIs/Data for China specific Recipe, Food, Food Composition. To make APIs/Data to be adopted by multiple domain relevant propositions, make the APIs and data to be de facto norm across Philips China. This application features are targeted to help people of China to manage their calorie intake, also suggesting them recipes of different food items along with their compositions like proteins, carbohydrates, fat etc.

- **SITA-DCS (Departure Control System)** - SITA is a multinational information technology company providing IT and telecommunication services to the air transport industry. Departure control system application deals with the complete journey of a passenger and is used by Airline to keep track of their Aircrafts and Services.

✧ Certifications

Mastering Python, Java 8 functional programming, Agile SAFE training, AWS

✧ Extra-Curricular Achievements

Participated and organized events in college tech fests like Inspiron and Impetus**.**
Placement coordinator for the year 2015-2016.
Organized student visit to SAP TechEd 2015 held at International exhibition center Bangalore.
Captain of the college women's volleyball team represented college in many interstate competitions.
Have won 3rd place in Karnataka state level badminton player during high school.
Attended "Indicon- 2015" – 12th Annual IEEE India conference – December 2015.

✧ Hobbies

Badminton, Chess, Trekking, Travel, Biking, Reading journals and publications about state of art innovations and developments in field of data science, artificial intelligence.