SASANK MARABATTULA

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EDUCATION

North Carolina State University, Raleigh **Expected May 2024**

Master in Computer Science ***GPA: 4.0***

Coursework: Design & Analysis of Algorithms, Database Management Concepts & System, Object Oriented Design & Development, Cloud Engineering, Software Engineering, Automated Learning Data Analysis, Neural Networks

University College of Engineering, Osmania University, Hyderabad **Aug 2015 – Apr 2019**

Bachelor of Engineering in Computer Science and Engineering ***GPA: 3.7*** *(9.04/10)*

Coursework: Data Structures, OS, Web Dev, Cloud Computing, Programming Languages Design, Object Oriented Programming, DBMS, Distributed Systems, Computer Networks, Internet Protocols, Data Science, Data Mining, Artificial Intelligence

TECHNICAL SKILLS

Languages : Python, SQL, PL/SQL, Java, Ruby, C++, C, Matlab, R, Shell Scripting
Databases : SAP HANA, Oracle SQL, MongoDB, MySQL, SQLite
Web Development : HTML, CSS, PHP, Javascript, Node.js, AngularJS,ReactJS
Tools : Git, Google(Run,App Engine,GKE), Docker, Postman, AWS, Microservices, Kubernetes, SAP (BODS, SDI)

PROJECTS

KAB Systems LLC Website: Created a static website for KAB Systems using Hugo CMS, applied CI/CD pipelines via Git and deployed on Netlify & AWS Lambda, with 99.9% availability. **Tools:** Hugo, Git, AWS Lambda, Netlify

Online Bookshop App: Designed and deployed a RESTful bookshop app with Ruby on Rails, SQLite, & GitHub pipelines. Included user reviews, payment gateway, transaction history & URL restrictions. Employed Agile practices, integrating 20+ test cases & deployed on Docker , achieving 90% peer rating. **Tools:** Ruby on Rails, SQLite, Docker, Git

Automobile Service Management System: Created a car servicing Java app on NCSU server, normalized DB with efficient ER diagrams and used hashmaps & heaps to cut runtime by 50%, featuring employee management, service scheduling, customer cart and invoicing. **Tools:** Java, Oracle SQLPlus, JDBC, Git

Histopathologic Cancer Detection: Developed several deep learning models (CNNs,VGG19) to identify metastatic cancer in small image patches. Performed image analysis, preprocessing and hyperparameter tuning to optimize the model, yielding 98.3% accuracy. **Tools:** Python, Tensorflow, Keras, Deep Learning, Neural Networks, Image Processing

RELEVANT EXPERIENCE

USDA-ARS SCINet Forage and Range Research Lab **Jun 2023 - Aug 2023**

Data Science Intern | Python, Tensorflow, Data Mining, Deep Learning, Image Processing, Git *Logan, UT, USA*

- Analyzed drone images for genotypes' yield prediction using data mining & image processing. Developed a neural network model to automate stem density calculation in wheatgrass images, potentially reducing resources costs by 80%.

Deloitte USI (Offices of US) **Jun 2019 - Jul 2022**

Software Analyst | Python, SAP Tools (HANA, Data Services, SDI), Tableau, Qlikview, Power BI, SAFe *Hyderabad, India*

- Designed and implemented efficient data pipelines on Deloitte's personnel data warehouses using BODS and SDI Flowgraphs and generating essential KPI metrics using HANA SQL DBMS. This resulted in a 30% reduction in budget and project time and significant cost savings for the firm, while maintaining within Customer SLA.
- Automated data loads & test plans with Shell Scripts, Python, SAP API's and ETL mechanisms with SQL procedures which eliminated hierarchy refresh redundancy and saved 50% of manual efforts.
- Deployed effective smoke test cases, averaging 10+ bugs per app which expedited pre-production resolution and effective development. Also migrated various legacy apps to SAP HANA Cloud.

Deloitte USI (Offices of US) **Jan 2019 - Jun 2019**

Software Intern | Python, NLP, HANA, SAFe *Hyderabad, India*

- Developed a Python automation script with XML parsing and HANA tools, automating the generation of base source objects for hierarchical fields, reducing 60% manual documentation efforts. Designed a search engine using Python NLP for fetching most similar records from a large dataset, yielding 85% accuracy.

ACHIEVEMENTS

- Finalist in JP Morgan Chase's Code for Good Hackathon, where an end-to-end android application was delivered for a Non-Profit organization to facilitate volunteering work for their users.
- Completed certifications in Cloud Computing, Data Science, Data Mining, Machine Learning & Deep Learning courses.
- Led end-to-end development of a large-scale project, overseeing design architecture and peer management, and received recognition and an award for exceptional contributions.