Sudeshna Bora

Berlin, Germany

✉ subora92@gmail.com 📱 +49 17685229668 🗔 sudeshna-bora.netlify.app/ in linkedin.com/in/sudeshna-bora

WORK EXPERIENCE

Student Assistant
Sprekeler Lab, Technische Universität Berlin

01/2021 - Present   *Berlin , Germany*

Achievements/Tasks

- Modified cuda source code generation framework of brian2cuda (open source project) to efficiently leverage concurrent kernel execution in gpu. This reduced execution time from 45 seconds to 20 seconds.
- Incorporated middleware using sphinx framework to host documentation of brian2cuda software.
- Created scripts using python and bash for comparative analysis of performance of algorithms developed in brian2cuda against its competitor sofwares (brian2, brian2genn).

Student Assistant
Neurocode, Max Planck Institute for Human Development

11/2019 - 11/2020   *Berlin, Germany*

Achievements/Tasks

- Developed, tested and deployed an online testing framework using PHP, Docker, Mariadb, JSPsych. This migrated on premise research experiments to cloud during covid lockdown.
- Created a scheduling script to scrape and preprocess news from 60+ german and english newspaper regarding covid 19 news using python and bash scripting.

Consultant
Deloitte Consulting Pvt. Ltd.

01/2016 - 09/2019   *Bangalore, India*

Achievements/Tasks

- Developed a big data storage and analytics platform using apache-spark, Spring framework, Hadoop Framework.
- Migrated a big data storage and analytics platform to AWS native services(AWS EMR, EC2, EKS , Cloudwatch). End to end responsible for planning, implementation, migration and hand over of a high priority project from Marathon, DCOS to AWS EKS using Helm chart manager.
- Set the standard with the team for non functional requirements of the projects like documentation, code scan, code quality reports , test coverage etc. Developed jenkins script to incorporate sonar lint reports and test report into build.

EDUCATION

Master of Science Computational Neuroscience
BCCN , TU Berlin

10/2019 - Present   *Germany*

Bachelor of Technology Computer Science & Engineering,
KIIT University

08/2012 - 08/2016   *India*

SKILLS

Languages: Java, Python, Shell script, Helm, Apache Spark, Cuda, Pytorch, Spring framework.

Database: MongoDB, AWS S3, HDFS, Mysql.

Services/Software: AWS EC2, AWS EKS, Docker, Camunda BPM, Jenkins, Hadoop , Splunk.

Documentation: Altassian Confluence, Latex, Markdown, Swagger.

Project Management: Git, Agile, Jira.

PROJECTS

Analysis of ukbiobank database for alcohol misuse, Charité – Universitätsmedizin Berlin (04/2021)
- Preprocessed and developed supervised and unsupervised algorithm on medical data (tabular records and structural MRI data) to identify possible markers in brain for alcohol misuse.
- Visualised statistical significant brain features using shapley algorithm.
- Languages and software used : python (pandas, pytorch, tensorflow, pandas, numpy, matplotlib) , bash , freesurfer.

Data Analytics - German Stroke Registry, CLAIM Berlin (05/2021 - Present)
- Preprocessing and analysis of medical data for binary and multi class classification for prognosis of stroke data using 6 different standardised algorithms. Currently has achieved an accuracy band of 85%.
- Languages : Python (pytorch, tensorflow, numpy, pandas, matplotlib, OOP paradigm).

Print your brain, Freie Universität Berlin (11/2021 - Present)
- Worked as a github administrator for the team. Responsibilities include setting up the github repository structure, wiki, designing and publishing github pages, making github tutorial for the team.
- Automated the workflow of procuring T1-brain data, process and convert it to consumable format for the 3D printing team using bash and python scripting.

Robotic Interactive Perception, Technische Universität Berlin (07/2020 - 11/2020)
- Implementation and comparative analysis (K- SVD unsupervised dictionary learning and Firenet Convolutional Network) of two image reconstruction algorithm for retinomorphic event based sensor cameras.

LANGUAGES

English
Native or Bilingual Proficiency

German
Elementary Proficiency

AWARDS

3 spot awards, Deloitte

1 applause award- Deloitte

Deutschland Stipendium , 2019 – 2021