Suparno Karmakar

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PROFESSIONAL EXPERIENCE

SDE-1   August 2021 – April 2022
Applied Research Works   *Kolkata, IN*

- Automating data collection and file generation pipelines with logging, cron-jobs and triggers on EC2 clients.(Python)
- Worked in a team that helped Cozeva acheive the NCQA DAV certification in 2021.
- Developed an engine to collect data from multiple APIs asynchronously, perform NLP tasks and file generation processes under a microservice.(Java)
- Developed a CCDA validator in JAVA and deployed in a file processing pipeline.(JAVA)

Full Stack Developer   August 2020 – August 2021
Tata Consultancy Services Limited   *Kolkata, IN*

- Development of a web application to track strategies for a fortune 500 company in US Healthcare and deployed them into production.Vuejs, Java, MySQL   Developed a Associate Management Portal, to track team statistics, update associate information, track VISA and flight expenses for travelling to on-shore projects. Developed an application to mange an ETL pipeline for validating and storing incremental datasets, run scheduled batch processing on the data.
- Developed a product to perform anomaly detection, statistical data analysis, data visualization and data quality measurement on any dataset(CSV or remote database) using Angular and Flask and MySQL.
- Developed a tool to measure devOps maturity of a project by pulling data from various devOps tools based on applicability.(Angular, Python, MySQL)

INTERNSHIPS

Research Associate   Aug. 2019 – Aug. 2020
University Of Calcutta   *Kolkata, IN*

- Developed a novel system of secure communication among nodes on a wireless sensor network, without actually using any encryption schemes, using the concept of combinatorial designs. Applied for patent and received patent published in the Official Journal of Patent Office (dated 2020-08-07, Issue No : 32/2020) (No.202031010267 A)
- Developed an automated pipeline for testing various deep learning models on different data sets.
- Developed a scheme called Bi-directional Hash Chains in Partially Balanced Incomplete Block Designs derived from bi-directional hash chains and q-composite key sets.

Research Intern   June 2019 – July 2019
IIT Patna   *Patna, IN*

- Assisted in developing a system that allows wireless sensor networks to distribute tasks among themselves to distribute load and power consumption.
- Developed a data-annotation tool for use of the research scholars.
- Developed a web application to apply Neural Style Transfer to any uploaded image using tensorflow.js and Angular

Engineering Intern   Aug 2018 – Dec 2018
Indian Space Research Organization   *Kolkata, IN*

- Developed an automated pipeline for analysis NDVI(Normalized difference vegetation index) for various strips of the Indian subcontinent over a period of time.
- Assisted in the migration of some internal applications from the LAMP stack to MERN stack.
- Assisted in the development of a communication pipeline between a web-app and mobile app using web-sockets.

EDUCATION

Post Graduate Diploma in Web Development   Sep 2021 - Dec 2022
Conestoga College   *Kitchener, CA*

Bachelor of Technology in Computer Science And Engineering   Aug. 2016 – Aug. 2020
University Of Calcutta   *Kolkata, IN*

Projects

Task Manager | *Vuejs, Nodejs, Express, MongoDB, Passport, Socket*   June 2020 – August 2021
- Creates a workflow starting from task creation,assignment,review,completion,reopening .
- Realtime notifications provided using web-sockets and a dashboard to show necessary stats.
- Using JWTs and refresh tokens along with CSRF tokens to maintain security of the website. Deployed using heroku and git.

Custom Portfolio Website | *HTML,CSS3, JavaScript, Nodejs, Firebase*   May 2018 – May 2020
- A configurable portfolio website tool that allows users to create their own portfolio website without writing the code
- Each user can login to change data which can be reflected in the website
- User can also download code for the website and deploy it later

Technical Skills

Languages: Python, C/C++, Assembly, JavaScript, HTML5/CSS3, Java, R, Matlab
Libraies and Frameworks: React, React-Native, Nodejs, Vuejs, JUnit, Angular, Flask, Hibernate, MaterialUI, Enzyme, Mocha
Developer Tools: Git, Docker, Jenkins, Google Cloud Platform, AWS,
Libraries: pandas, NumPy, Matplotlib, Tensorflow, PIL