UPASANA CHAKRABORTY
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Data Engineer enthusiastic about creating synergies between wireless networks, machine learning and AI. Having worked in a number of large-scale IT projects, I bring an amalgam of technical and collaboration skills that enable me to be successful both as an individual contributor and a team player.

WORK EXPERIENCE

Data/DevOps Engineer III   11/2022 – present
Swisscom, Zurich, Switzerland
Provide Mobile Observability stack through developing E2E data pipelines ranging from data collection to transformation with visualizations and anomaly detection
- Filling in as the system architect using various state-of-the-art technologies, from using automation tools to exploring use of GenAI to reduce toil
- Core Committee member of Site Reliability Engineer Community of Practice
- Presenting and promoting our product in various Tech Talks

Product Owner and DevOps Engineer (Step-In)   10/2021 – 10/2022
Swisscom, Zurich, Switzerland
Developed a feature toggling app to ease the life of developers to do better software testing and rollouts
- Successfully led the development and launch of a feature toggling tool, enabling seamless deployment, rapid experimentation, and enhanced product stability for cross-functional teams.
- Cloud Champion of the team designing cloud architecture using in-house and AWS services
- Softwares and Programming Languages used: Jenkins, iAPC (cloud foundry) and its services, Docker, Prometheus, Grafana, ELK, Angular, Java, Spinnaker, Splunk, building an API, Jira, Artifactory etc.

Associate Business Analyst/ Implementation Consultant   07/2018 – 08/2019
Ramco Systems, Dubai, UAE
Consulted for IT product implementation across Middle East and Africa
- Supported full cycle implementation of Payroll and HR products for MNCs
- Gathered requirements from business teams to produce quality documentation followed by product configuration and training

EDUCATION

Master of Science (M.Sc.) - Information Technology and Electrical Engineering
ETH Zurich, Zurich, Specialization in Communications - (5.4/6)   09/2019 – 05/2023

Bachelor of Engineering (B.E.) - Electronics and Communications Engineer
Birla Institute of Technology and Science, Dubai - (9.89/10)   09/2014 – 06/2018

RESEARCH / INTERNSHIPS

Research Assistant   11/2020 – 01/2021
Institute of Wireless Communication Technologies, ETH Zurich, Zurich
Designing posture support and guidance system for elderly and people affected with Parkinson's disease using signal processing and machine learning
- Conducted literature review to shortlist relevant postures
- Performed troubleshooting and collected frequency response data using Network Analyzer and Oscilloscope
- Processed data for posture analysis to detect failure of gait through ML model

Research Internship, *Indian Institute of Technology, Delhi, India*   06/2017 – 08/2017
Internship on an industry funded project named "Algorithmic framework for MEMS sensor fusion applications".

- Implemented orientation estimation algorithms using MEMS inertial sensors - accelerometer, gyroscope and magnetometer and performed comparison study on them

Manufacturing Dept. Intern, *Emerson Rosemount, FZE, Dubai, UAE*   06/2016-08/2016
- Handled tasks related to manufacturing and assembling of various types of transmitters, thermocouples and sensors, like Extracting Bill of Materials, Backflush and Salvage processes
- Updated prospectus web tool and editing certificates, constructing flowcharts using Microsoft Visio

Vocational Internship, *Bharat Sanchar Nigam Limited, Delhi, India*   06/2015 – 07/2015
Undertook training in communication technologies such as Satellite Communication, Optical Fiber etc.

PUBLICATIONS
'BrainFuseNet: Enhancing Wearable Seizure Detection through EEG-PPG-accelerometer Sensor Fusion and Efficient Edge Deployment', in IEEE Explore

'EPIDENET: An Energy-Efficient Approach to Seizure Detection for Embedded Systems', in BIOCAS

'Feature Extraction and Classification of Epileptic EEG signals using Wavelet transforms and Artificial Neural Networks', in Springer Lecture Notes, Scopus indexed

'Signal Processing Methods of Diagnosing Alzheimer's Disease Using EEG – A Technical Review' in 'NAUN International Journal of Biology and Biomedical Engineering'

'Time-Frequency Methods for Diagnosing Alzheimer's Disease Using EEG – A Technical Review' in ACM Digital Library, Scopus indexed under Thomson Reuters Conference Proceedings

INTERPERSONAL SKILLS
Adaptable and cooperative working style, Communication skills, Analytical & Strategic Thinking, Presentation skills, Problem Solving, Quick learner, Leadership, Innovation mindset, Insight driven

FUNCTIONAL SKILLS
Machine/Deep Learning, AI, Wireless Access Systems, Big Data, 5G, Signal Processing, IoT, Ubiquitous Computing, Technology and Innovation Management, International Business Management

SOFTWARES AND PROGRAMMING LANGUAGES
AWS Cloud Practitioner, Python, K8, SQL, Flink, Spark, Grafana, Prometheus, NiFi, Linux

HONORS & AWARDS   *Birla Institute of Technology and Science*   2014 - Present
- Swisscom Talent Pool Member
- Executive Member of Women in Engineering
- Chancellor's Silver Medal for second highest grade
- Director's All Round Achievement Award
- Chairperson of IEEE, BPDC Student Branch

EXTRA-CURRICULAR ACTIVITIES
- Graduate in Odissi - A classical dance form of India   2008
- Participant of Boogie Woogie - Dance reality show aired on Sony TV in India   2008
- Classically trained in Indian music - Hindustani Singer   2009 - 2010
- National level Rink and Road Roller Skater - Secured Silver Medal   2011

LANGUAGES
English (Fluent), German (A2), Hindi (Native), Bengali (Native), Odiya (Native)

COMMUNITY ENGAGEMENT
University Relations Head, *AIESEC, UAE*   2016 - 2017
- Recruited and trained student for programs like Global Volunteering, Talent and Entrepreneurship to enhance cross cultural skills and work towards United Nations' 17 sustainable development goals.