Niladri Dhar

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Education

- **Dr. Sudhir Chandra Sur Institute of Technology and Sports Complex** — Kolkata, India
  B.tech in Computer Science Engineering; GPA: 8.78 — *Nov 2020 - Aug 2024*
- **Baranagar Ramakrishna Mission Ashram High School** — Kolkata, India
  10 th standard; Marks: 91.3% — *2018*
- **Baranagar Narendranath Vidyamandir** — Kolkata, India
  12 th standard; Marks: 85% — *2020*

Skills Summary

- **Languages**: Python, C, C++, Bash(Shell scripting)
- **Frameworks**: Django, Flask
- **Tools**: Ansible, Pulumi, Terraform, Docker, Git, Bitbucket, Jira
- **Platforms**: Linux, Web, Windows, AWS, Networking
- **Soft Skills**: Communication

Experience

- **Zscaler** — Hybrid
  Devops Engineer(Intern) — *Feb 2024 - Aug 2024*
  - **EC2 Automation Using Pulumi**: Designed and implemented an automation script leveraging **Pulumi** to streamline EC2 instance provisioning on **AWS**. Enabled developers to define configurations via **YAML** files, specifying parameters like machine OS, count, disk space, and required tools, ensuring seamless and scalable deployment.
  - **Ansible Automation for Linux & Networking** : Developed and executed various **Ansible playbooks** to automate critical system and network management tasks, including **Linux machine setup**, **package management**, **user creation**, **network configurations**, and **SSH setup**. Delivered enhanced operational efficiency and minimized manual intervention through robust automation solutions. .
  - **API Development with Flask** : Built and deployed multiple **Flask API servers** as backend solutions to deliver dynamic and user-friendly endpoints. Designed endpoints to effectively display **product test results** in a responsive and comprehensible format, enhancing data visualization and accessibility during the internship.
  - **AWS Resource Optimization Using Boto3** : Designed an automation script with **Python Boto3** to identify and manage unused **AWS volumes and snapshots** based on predefined parameters, such as deployment time, inactivity duration, and critical EC2 associations. The script generated detailed spreadsheets with data like **resource IDs, AWS region, monthly costs, deployment time, and uptime**, providing actionable insights for cost-saving opportunities. Included functionality to delete non-essential resources, significantly optimizing **cloud resource utilization** and reducing operational expenses.
  - **Server Benchmarking with Python Asyncio** : Developed a **stress testing script** using **Python Asyncio** and multithreading to evaluate the performance of newly deployed repository servers. The script simulated parallel **package downloads** and generated a comprehensive report with metrics like **package name, size, max/min download speed, max/min download time, and average download time**. Results were compiled into a spreadsheet, facilitating cross-analysis of server performance across different **AWS availability zones**, ensuring optimal deployment strategies.

Projects

- **Linkup - social media website with various functionalities (Web Development)** : LinkUp: Empowering seamless connections. A **Flask-SocketIO** based chat application with chatroom creation, persistent chat history, voice messaging, file sharing, and profile picture features for a dynamic and engaging communication experience.View the project:project-link
- **Movie-Cli (web-scrapping, python application)**: The **movie-cli** is a fun project based on the fundamentals of web-scrapping. It's a console application written in python which will play any movies/series from a certain website without opening any web browser. View project: project-link
- **Twisearch (web-scrapping)**: The **twisearch** project is a console application written in python to scrape tweet data from x.com without any interaction and or opening web-browser. This application uses specific x.com cookies to login and then based on the user input it will search tweets from the website.It also has feature called storing cursor by which the application can search tweet from the last saved position.This application was mainly developed for a machine learning project. This application also saves tweet in a spread sheet. View the project: project-link
- **AV Evasion (cybersecurity)**: The Av-Evasion project is a cyber-security related project that generates custom payload that evades anti-version detection methods.This custom project tries to evade anti-virus detection via various means. View the project: project-link

Publications

- **Presented a research paper at the ISACS conference on an innovative project that leverages AI-assisted, fully encrypted communication, featuring integrated video call capabilities for enhanced security and real-time interaction. Date: 13.11.2024** :