

SWAPNIL MUKHERJEE

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PROFILE

A seasoned Software Developer and IAM Expert with extensive experience in full-stack development, security protocols, and Agile methodologies. Proven ability to deliver scalable solutions and advance security and identity access across various platforms. Eager to contribute to a dynamic team by leveraging technical expertise to drive innovation and operational excellence.

TECHNICAL SKILLS

Languages: C, CSS, Golang, HTML5, Java, JavaScript, Python, SQL, Unix

Development: Agile, Object-Oriented Programming (OOP)

Database: MongoDB, MySQL, PostgreSQL, SQLite

Frameworks: Django, Flask, MPI, OAuth 2.0, OIDC, OpenMP, SAML 2.0.

Cloud Computing: Amazon Web Services, Google Cloud Platform

Tools: Ansible, Docker, Git, Identity IQ, Jenkins, New Relic, Okta, Postman, PyTest, SiteMinder, Splunk

IAM & Directory Services: Active Directory, Azure AD, CyberArk, LDAP, SailPoint

Authentication Protocols: OAuth, OpenID Connect, SAML

EDUCATION

M.S. in Computer Science

Clemson University

Relevant Coursework: Cloud Computing, Cybersecurity, Data Structures and Algorithms, Database Management Systems, Design and Analysis of Algorithms, High-Performance Computing, Network Security, Operating Systems, Security Engineering, Software Engineering

May 2024

Clemson, SC

B.Tech. in Computer Science and Engineering

Institute of Engineering and Management

Jul 2020

Kolkata, India

PROFESSIONAL EXPERIENCE

Systems Engineer

Tata Consultancy Services Limited

Jul 2020 – Aug 2022

Kolkata, India

- **IDAM & SSO Leadership:** Expertly led SSO and IDAM integration using SAML 2.0, OIDC, and OAuth 2.0 across cloud services, enhancing global authentication and data security protocols, as an Okta SME.
- **Integration & Deployment:** Spearheaded the AWS integration of 100+ applications, utilizing Okta API and Postman, ensuring robust functionality and scalability; led migrations from on-prem to cloud, incorporating Palo Alto firewall configurations to meet stringent security standards.
- **Operational Excellence & Automation:** Oversaw server automation, cutting downtime by 65%, and optimizing operational workflows, including security appliance deployment.
- **Security & Compliance:** Established and enforced MFA and zero-trust policies, reducing security incidents by 12%, a testament to the fortified organizational defense framework.

Winter Intern

Nokia Networks

Jan 2019 – Feb 2019

New Delhi, India

- Developed Python scripts and APIs for automation, increasing deployment efficiency by 15% and enhancing tool compatibility.
- Deployed automated testing frameworks, improving software reliability by 5% and optimizing network performance monitoring.

ACADEMIC/PERSONAL PROJECTS

Pizzeria

Engineered a Java-based ordering system with PostgreSQL on AWS RDS, boosting processing efficiency by 40%. Featured extensive pizza customization options, dynamic pricing, and inventory management. Ensured quality with thorough unit testing.

Oct 2023 – Dec 2023

Space Hangman

Built a multiplayer online Python-based game using Flask, HTML5, CSS, and JavaScript, reaching 100 users weekly. Integrated 3 third-party APIs for additional features and used git for version control, with over 20 commits, improving code stability and team collaboration.

Sep 2023 – Oct 2023

System Monitoring Tool

Developed a Python-based tool to monitor key metrics (CPU, GPU, network, memory) and designed alerts for 20 anomaly scenarios, boosting system responsiveness by 15%. Implemented a real-time data visualization dashboard used by the University IT department.

Apr 2023 – May 2023

HealthFit

Developed a Python-based nutrition advisor with RESTful APIs, enhancing dietary accuracy by 20% through integration with a 1,000+ food database. Implemented a React-driven minimalist UI and robust security with OAuth and encryption.

Jun 2022 – July 2023

Neural Style Transfer

Created an advanced tool using neural networks and optimization algorithms in Python to merge content from source images with styles from reference images. This dual-purpose application creates AI-driven art and supports therapeutic uses for mental health interventions.

May 2020 – July 2020