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 — **May 2024**
Clemson University — *Clemson, SC*
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*

B.Tech. in Computer Science and Engineering — **Jul 2020**
Institute of Engineering and Management — *Kolkata, India*

PROFESSIONAL EXPERIENCE

Systems Engineer — **Jul 2020 – Aug 2022**
Tata Consultancy Services Limited — *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 — **Jan 2019 – Feb 2019**
Nokia Networks — *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 — **Oct 2023 – Dec 2023**
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.

Space Hangman — **Sep 2023 – Oct 2023**
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.

System Monitoring Tool — **Apr 2023 – May 2023**
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.

HealthFit — **Jun 2022 – July 2023**
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.

Neural Style Transfer — **May 2020 – July 2020**
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.