

# SIDDHESH SHINDE

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## SKILLS

<b>Languages</b>	Python, Java, Go (Golang), SQL, C, JavaScript, HTML5/CSS3
<b>Databases</b>	MySQL, MongoDB, PostgreSQL, Redis, SQLite, Firebase
<b>Backend</b>	Spring Boot, Django, Gin, Nginx, Apache, Kafka, Hibernate, sqlc, REST, JSON APIs, GraphQL
<b>Tools</b>	Git, AWS (EC2, RDS, S3, Lambda), Docker, Kubernetes, Postman, Jira
<b>Other Skills</b>	MVC, Microservices, SOA, NoSQL, ORM, OAuth, JWT, PASETO, Spring Security, React, Tailwind, htmx, templ, Bootstrap, XML, NumPy, Pandas, Qiskit

## PROFESSIONAL EXPERIENCE

**Machine Learning Security Research Intern** Aug 2023 - Present  
Binghamton University

- Researched over 45 studies on Deep Learning applications, Neural Networks, ML Security and Privacy.
- Implemented adversarial attacks in ML with backdoors, trojans, data poisoning, achieving over 90% accuracies.
- Explored security challenges and mitigation strategies in hardware platforms of deep learning applications.

**Assistant IT Manager** Jan 2022 - May 2023  
Binghamton University Dining Services

- Managed over 7000 inventory, recipe, menu and invoice entries in database (Inventory software and MS SQL).
- Installed, configured and maintained IT infrastructure for 5 dining halls and over 20 outlets.

## PROJECT EXPERIENCE

### Banking Backend (Code Repository)

- Developed over 15 REST APIs for admin and user operations, including user and account management, and seamless transactions, using Go, Gin, PostgreSQL, sqlc.
- Created authentication middleware to authorize API requests, with PASETO, and built exhaustive unit tests.
- Implemented CI/CD pipelines for automated testing, database migration, containerization, and deployment, utilizing Github Actions, Docker, Kubernetes, Amazon Web Services (ECR, RDS, EKS and IAM).

### Microblogging Social Media (Code Repository)

- A full-stack web application mirroring X's functionality using Java 17, Spring, React, Tailwind CSS and MySQL.
- Designed 17 REST APIs, 16 functionalities for users, with MVC architecture, DAOs and DTOs.
- Implemented multimedia-rich post capabilities, social interactions, account and profile management, sessions.
- Utilized Java Persistence API for ORM, and Spring Security with JWT, Redux for state management, and MUI.

### Impact of US elections on social media (Code Repository)

- Built a custom Python web scraper with OAuth2 and Reddit API to gather 485k unique political JSON objects.
- Utilized MongoDB, and conducted analysis on 10 topics, 3 sentiments and 8 emotions using NRC Emotion Lexicon and VADER. Constructed an emotion score prediction model using NumPy, Keras and TensorFlow.
- Performed Data Visualization by plotting interactive graphs using Bokeh and Matplotlib.

### Employee Management (Code Repository)

- Developed a web application with role-based authorization and designed 9 APIs to manage employee details.
- Utilized Java 8 with Spring Boot and Spring MVC, Spring Security with JDBC authentication.
- Used MySQL database, Spring Data Java Persistence APIs for ORM, and Thymeleaf to create Web UI.

## EDUCATION

**Masters in Computer Science** Aug 2021 - May 2023  
Binghamton University, State University of New York (GPA: 3.67/4.0)  
Coursework: Design Patterns, OS, Data Mining and Privacy, Social Media Data Science Pipeline, Computer Security.

**Bachelors in Computer Engineering**, University of Mumbai 2015 - 2019  
Research Publication: Road Surveillance System, Journal of Applied Sciences and Computations, ISSN No: 1076-5131