

SAGAR NARESH SIDHWA

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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science

Master of Science (MS) in Computer Science (Major: CS Artificial Intelligence)

Graduated 2025

Cumulative GPA: 3.7/4.00

Relevant Coursework: Data Structures and Algorithms, Operating Systems, Database Systems, Data Mining, Social Media and Data Science Pipeline, Machine Learning, Artificial Intelligence

University of Mumbai, Vivekanand Education Society's Institute of Technology

Bachelor of Engineering (BE) in Computer Engineering

June 2021

Cumulative GPA: 3.78/4.00

Relevant Coursework: Software Engineering, Web Development, Object-Oriented Programming, Management of Information Systems

TECHNICAL SKILLS

Languages: Python, C#, SQL, NoSQL, JavaScript, TypeScript, C, Java, HTML, CSS, XML, PHP

Frameworks: Django, Django REST Framework, Flask, FastAPI, AngularJS, Langchain, OLLAM, Node.js, Blazor, Apriso

Libraries: NumPy, Pandas, TensorFlow, SciPy, Matplotlib, OpenCV, Keras, PyTorch, Scikit-Learn, XGBoost, jQuery, Matlab

Software and Tools: Visual Studio Code, Visual Studio, Git, Postman, Microsoft SQL Server, Azure DevOps, CI/CD Pipeline, AWS S3, EC2, RDS, API Gateway, Elastic Beanstalk, CloudWatch, SQS, SNS, Lambda, Bedrock, SageMaker, Jupyter Notebook, Secrets Manager, IAM, KMS, GitHub, GitLab, MongoDB, PostgreSQL, Kibana, PowerBI, Tableau, SaaS, PaaS, Linux, Excel, Microsoft Office Suite

Additional Skills: Machine Learning Algorithms, Predictive Analysis, JSON Parsing, XML Parsing, Data Pipeline, UI/UX Development, Client-Side and Server-Side Development, Front-End and Back-End Development, RESTful Web Services, Bootstrap, Data Visualization

PROFESSIONAL EXPERIENCE

Binghamton University, Graduate Assistant | *Binghamton, New York, US*

August 2024 – Present

- Developed an AI chat system, that converts doctor's brief instructions into detailed care descriptions for nurses using RAG and LLM
- Built a diagnostics portal, integrated medicine-barcode mapping, optimized delivery scheduling and inventory material tracking by 40%
- Engineered audio frequency enhancer, using python, signal processing techniques, simulated patient voice variations for medical training
- Collected medical data from Kaggle, integrated it with MongoDB for cloud-based storage and API access, managed large-scale datasets
- Created a remote API data collection pipeline from Reddit and YouTube using Python and PostgreSQL, performed real-time data retrieval
- Built a website with interactive data analysis dashboards, integrating Flask, and Python, applied a filter algorithm to adjust parameters by time ranges, compared latest and historical results, and enabled comprehensive report review and detailed insights

LTIMindtree, Software Engineer | *Mumbai, India*

June 2021 – July 2023

- Developed an automated assembly line sorting algorithm that included dynamic data sorting and filtering, improved data handling, AI-based systems, management and governance, achieved efficient process automation
- Fixed a critical security flaw by implementing KMS encryption in the authentication process, secured IAM user credentials and login failures, CloudWatch with metrics monitoring and running python scripts, recognized as a major enhancement by 20+ clients
- Worked with a team of five, created backend APIs endpoint for assembly line orders using Python WebAPI, Postman, AWS S3, AWS EC2, Azure DevOps, CI/CD Pipeline, GitHub and GitLab, to improve RDBMS, Stored Procedures, Functions and Triggers in Transact SQL
- Enhanced UI/UX of web pages with Django Framework, C#, JavaScript, TypeScript, AngularJS, Microsoft SQL for better user experience
- Led pre-production and production deployments in AWS cloud infrastructure, managed JIRA tasks, change requests, and user stories; Collaborated with cross-functional for Agile project execution, evaluated issues, deployed using CI/CD Pipeline and resolved bugs
- Automated deployments lifecycle by creating DevOps Pipelines, reducing production time by 20% and manual workload by 50%

VESIT, Software Development Engineer | *Mumbai, India*

January 2020 – April 2021

- Developed a website for visually impaired healthcare users with Django, and SQL Server, to learn from audio read-back of scanned text
- Deployed an end-to-end text to speech model through Pytesseract, pyttsx3 libraries, and a text-to-audio alignment mapping algorithm
- Designed responsive UI/UX pages, functioned dynamic data upload section and structured backend engine, attaining 92% system accuracy
- Categorized cyberbullying and detected dummy accounts with a team of four, through Python, advanced logic, SQL, and NLP; deployed Random Forest and other Machine Learning models with Pickle files, leading system performance by 78% and improved cybersecurity
- Built a backend incident notifications system for admin page with Object-Oriented Programming, JavaScript for dynamic functionality, analyzed crucial features, and utilized GitHub for distributed deployment, delivering streamlined and direct issue reporting to the panel

VESIT, Software Engineer Intern | *Mumbai, India*

November 2019 – January 2020

- Developed a multi-tiered architecture "Attendance Monitoring System", in a team of three, using Django, ML and Git for version control
- Incorporated image and face recognition algorithms, extracted photos, generated encodings, using Python, OpenCV, Pandas, Relational Databases, SQL, Identified partial face visibility using a symmetry-based approach, with exploratory data analysis for pattern recognition
- Avoided redundant Machine Learning models training by creating a pickle file-based caching algorithm, optimizing system speed by 60%

CERTIFICATIONS AND PUBLICATIONS

- Amazon Web Services (AWS) Certified Machine Learning Engineer - Associate | March 25'
- Probability for Data Science Certification Issued by Binghamton University | January 25'
- Authored two paper publications - "Cyber bullying and Fake Account Detection in Social Media" featured in Elsevier, and "Attendance Recognition System using Face Appearance" presented at SAMRIDDHI Journal, highlighting advancements in technology
- Completed Oracle certifications in AI, ML, Database Design, and Programming (SQL)
- Awarded "Business Unit of the Year" in the GoMX Annual Hall of Fame 2022 for excellence in the Manufacturing MFGOG project