Soham Patil

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# PROFILE SUMMARY

Software Engineer with expertise in Python, Java, JavaScript, and AWS. Proven success in enhancing data management and security. Skilled in delivering innovative, data-driven solutions with a focus on efficiency and scalability.

# SKILLS

Python (NLTK, SpaCy, TensorFlow, Keras, Django, Sci-kit learn, NumPy, Pandas), PHP (phpMyAdmin), JavaScript (React, Node), Java, C, C#, C++, SQL (MySQL, MSSQL, SQLite), HTML, CSS, ASP.NET, AWS (S3, EC2, Lambda, Glue, IAM, KMS, DynamoDB, SNS), Apache Tomcat, Docker, Kubernetes, Jenkins.

# EXPERIENCE

**Reliance Industries Limited** Sept 2021 – Feb 2022

Software Developer – Intern Co Op

* Engineered an ASP.NET solution with AWS services, cutting employee data management task time from 6 hours to 12 minutes.
* Created a role-based access control system, strengthening data security and reducing unauthorized access incidents by 95%.
* Utilized AWS Lambda and SNS to automate essential operations, enhancing efficiency by 40% and streamlining workflow.

**Trivia Softwares** Nov 2019 – April 2020

Software Developer – Intern Co Op

* Led ERP system development using Python, Django, and JavaScript, elevating functionality and user experience, yielding a 70% surge in system efficiency.
* Managed application deployment with Apache Tomcat and improved scalability with Docker and Kubernetes containerization, reducing deployment time by 85%.
* Implemented Jenkins for CI/CD, leading to a 65% reduction in bug rates.
* Enabled data-driven decision-making with interactive dashboards, boosting project efficiency by 40% through enhanced data acquisition processes.

# EDUCATION

**George Mason University** Fairfax, Virginia

Master of Science – Computer Science August 2022 – May 2024 *Coursework*: *Analysis of Algorithms, Artificial Intelligence, Advanced Natural Language Processing, Component Based Software Development, Software* Design and Architecture, Information Security

**University of Mumbai** Mumbai, India

Bachelor of Engineering - Computer Engineering August 2018 – May 2022

*Coursework*: *Operating Systems, Data Structures, Analysis of Algorithm, Artificial Intelligence, Machine Learning, Database Management*

# PROJECTS

**MOCP (ASP.NET, AWS, MSSQL): Link**: <https://github.com/NotSoham07/MOCP>

* Led development of an ASP.NET solution, enhancing data task efficiency.
* Utilized AWS for secure, scalable data storage and implemented role-based access control for data security.
* Automated processes with AWS Lambda and SNS, optimizing operations.
* Achieved a secure Employee Data Management System, reducing task completion time from 6 hours to 12 minutes and improving productivity.

**Touchless Ecosystem using Hand Gestures (Machine Learning): Link**: <https://github.com/NotSoham07/Touchless-Ecosystem>

* Developed a hand gesture recognition system using TensorFlow for precise 3D hand landmark detection, achieving over 95% accuracy in recognizing complex gestures.
* Enabled seamless gesture-based control for user interactions with a responsive front-end, reducing the need for physical touch by up to 80% in test environments.
* Integrated the system into a Django web framework, enhancing user interaction and engagement by 30% in a pilot deployment.

**Spelling & Grammar Checker (Natural Language Processing, Computer Vision):**

* Designed and implemented a sophisticated NLP-driven system for spelling and grammar correction, resulting in a 92% improvement in text accuracy and coherence.
* Employed Python and LSTM technology to accurately detect and rectify misspelled words, achieving a detection accuracy rate of over 95%.
* Enhanced the system's performance by integrating advanced natural language processing techniques for contextual understanding and error correction.

# PUBLICATIONS

# S .Patil, S. Kodarlikar, S. Marathe, & , D. V. Chandran (2022). "Touchless Ecosystem Using Hand Gestures." International Research Journal of Engineering and Technology (IRJET), 9(4), 2533. **Link:** <https://www.irjet.net/archives/V9/i4/IRJET-V9I4291.pdf>

* D. Bharambe, M. Chaudhari, and S. Patil, "Object Detection, Recognition and Distance Tracking to Aid in Navigation for Visually Challenged." *International Research Journal of Engineering and Technology (IRJET)*, 8(11), 1484. Link:<https://www.irjet.net/archives/V8/i11/IRJET-V8I11242.pdf>