

# SWAROOP THAKARE

## Computer Engineer



Aspiring AI/ML Engineer and proficient Python Developer with strong experience in building machine learning models, applying NLP techniques, and designing intelligent systems. Skilled in Python, Scikit-learn, Pandas, NumPy, and data pipeline creation. Delivered ML solutions for real-world use cases like fake news detection, academic planning, and user behavior analysis. Solid grasp of model evaluation, feature engineering, and API deployment. AWS-trained with knowledge of cloud-based ML workflows.

### EDUCATION

Bachelors of Technology in Computer Engineering

Pimpri Chinchwad College of Engineering

08/2022 06/2026

Pune, India

### PROJECTS

#### Accessible Public Transportation System Website

Tech Stack- Python Node.js, MySQL, JavaScript, HTML5, CSS3

- Designed and deployed a full-stack accessibility-first web application compliant with WCAG 2.1 Level AA, enhancing usability for visually, cognitively, and mobility-impaired users.
- Implemented accessibility features including high-contrast mode, ARIA tags, and screen reader compatibility using semantic HTML and JavaScript.
- Integrated real-time route planning using live transit APIs, with backend enhancements for data normalization, caching, and performance optimization.
- Achieved a 40% improvement in routing efficiency by optimizing the underlying pathfinding logic using Python scripts for distance and time estimation.
- Ensured cross-browser compatibility and low-bandwidth resilience using progressive enhancement and lazy-loading techniques.

#### Freelancer Management System (FMS)

Tech Stack: MongoDB, Express.js, React.js, Node.js (MERN Stack)

- Engineered a scalable platform to manage freelancer profiles, task allocation, payments, and performance tracking
- Implemented role-based access control, secure authentication, and dynamic dashboards for clients and freelancers
- Utilized Agile methodology with Jira for sprint planning and GitHub for CI/CD workflows
- Enhanced task tracking efficiency and streamlined remote collaboration for global teams

#### College Connect – AI-Enhanced Academic Platform

Tech Stack: Next.js 14 (App Router), React 18, TypeScript, Tailwind CSS, PostgreSQL + MongoDB (hybrid architecture), WebSockets (Socket.io), NextAuth.js, OpenAI API (GPT-4)

- Designed and implemented an all-in-one academic management platform aimed at streamlining student-faculty interaction
- Developed modules for course registration, real-time messaging, event scheduling, and academic resource sharing
- Integrated secure authentication using NextAuth.js and JWT, along with real-time communication via WebSockets
- Planned integration of OpenAI API to offer personalized academic assistance and smart planning for students
- Designed roadmap for reinforcement learning integration to enhance adaptive learning pathways and academic resource allocation.

#### Machine Learning–Driven News Veracity Detection System

- Tech Stack:Python, Scikit-learn, Pandas, TF-IDF, NLP, Logistic Regression
- Built and deployed a classification model to detect fake vs real news.
- Performed text preprocessing: tokenization, stemming, stop word removal.
- Used TF-IDF vectorization and tested multiple classifiers.
- Achieved high accuracy using Logistic Regression; evaluated with confusion matrix, precision, recall.
- Designed the system to be scalable and explainable for real-time misinformation detection.

### EXPERIENCE

#### Public Relations Account Executive

ACM PCCOE, CESA ,PCCOE · Full-time

- Contributed as a full-time member of the Student Council of the Computer Engineering Department at PCCOE, driving academic and technical initiatives.
- Managed communications between stakeholders, faculty, and external partners, ensuring seamless coordination of events and fostering strong professional relationships. Led a team of 10, mentoring junior team members to improve communication skills, organisational abilities, and team collaboration.

### SKILLS

- Programming Language: Python (Advanced), C++
- Web Development (Frontend & Backend): HTML5, CSS3, JavaScript (ES6+), TypeScript, PHP, React.js, Next.js, Redux, Tailwind CSS, Bootstrap, Node.js, Express.js, RESTful APIs, GraphQL
- Databases: MongoDB, Firebase, MySQL, SQL, PL/SQL, Data Modelling
- Data Analytics & Visualisation:APandas, NumPy, Matplotlib, Seaborn, Plotly, SQL (Joins, Window Functions, Aggregations), Statistical Analysis, Advanced Excel (PivotTables, Power Query, VLOOKUP/XLOOKUP), Tableau, Power BI, Google Sheets
- Project Management Tools & Methodologies: gile/Scrum Methodologies, Jira (Advanced Workflows), Confluence, Slack, Project Boards
- (Cloud & DevOps: AWS Cloud Foundations (Certified), AWS Data Engineering (Basic), Docker (Basic)
- AI/ML & Data Science: Scikit-learn, Natural Language Processing (Tokenization, Stemming, TF-IDF), Supervised Learning (Classification, Regression), Model Evaluation Metrics, A/B Testing
- Soft Skills: Team Collaboration, Communication, Problem-Solving, Ownership, Adaptability

### COURSES AND CERTIFICATION

- AWS Academy Graduate - Cloud Foundations – Amazon Web Services (AWS)
- AWS Academy Graduate - Data Engineering – Amazon Web Services (AWS)
- AWS APAC - Solutions Architecture Job Simulation – Forage
- Deloitte Australia - Technology Job Simulation – Forage
- HTML, CSS, JavaScript and React Certification – Udemy
- Master SQL, MySQL, PostgreSQL, and MongoDB – Udemy
- Tata Group - Data Visualisation: Empowering Business with Effective Insights – Forage
- Google AIML Program – AICTE (All India Council for Technical Education)
- Master Python and Dive into Generative AI – Udemy
- KPMG UK - Audit Job Simulation – Forage
- Professional Certificate in Project Management – MTF Institute of Management, Technology and Finance
- Deloitte Australia - Technology Job Simulation – Forage