SAHIL ADIVAREKAR

sahiladivarekar99@gmail.com | GitHub | LinkedIn | Google Scholar | Portfolio | +1 (582) 203 8467 | Willing to Relocate

SUMMARY

Full-stack software and AI/ML engineer with 2+ years designing and shipping scalable web applications and services across finance, gaming, and research domains. Expert in Python, JavaScript/TypeScript, Django, React, SQL, and AWS. Delivered resilient APIs and cloud-native systems that handle **10 K+** daily users, cut request latency by **30%**, and reduced manual effort **40%**. Thrive in Agile teams, translating requirements into production-ready features on schedule.

EDUCATION

M.S. Computer Science and Engineering The Pennsylvania State University, University Park, PA
Aug 2023 – May 2025 GPA: **3.5/4.0**
Relevant Coursework: Large-Language Models, Multi-modal Learning, Neurosymbolic AI, Adversarial Deep Learning

B.E. Computer Engineering University of Mumbai, Mumbai, India
Aug 2019 – May 2023 GPA: **3.6/4.0**
Relevant Coursework: Data Structures & Algorithms, Operating Systems, Cloud Computing, Deep Learning, NLP

SKILLS

Programming	Python, Java, C, C#, JavaScript, SQL
NLP / LLMs	Transformers: GPT-x, BERT, MiniLM, Prompt Engineering, LLM Evaluation: BLEU, ROUGE
ML & DL	Supervised, Unsupervised, Reinforcement Learning, Generative AI, Recommendation Systems
Frameworks	PyTorch, TensorFlow, Hugging Face, Scikit-learn, LangChain, Streamlit, Vue.js, Django, Flask
Cloud	AWS (SageMaker, S3, EC2, Lambda, ECS), Azure, Docker, Kubernetes, MLflow, FastAPI
Data & Tools	Git, GitHub, Ubuntu, MySQL, PostgreSQL, Feature Engineering, Data Manipulation, A/B Testing

EXPERIENCE

Easley Dunn Productions, Inc. – AI Systems Engineer (Volunteer, Remote) Jun 2025 – Present
– Developed modular **AI systems** for an eSports mobile game, implementing strategic behaviors and decision-making logic to enhance **player experience**; contributed remotely as a **volunteer**, collaborating in **agile sprints** with **cross-functional teams** to ensure timely, high-quality deliverables

Smeal Business School – AI/ML Engineer and Researcher Aug 2024 – May 2025
– Investigated **2M+** ZuluTrade records to uncover sentiment-risk patterns, elevating profiling precision by **23%**
– Boosted insight generation by **3×** using **MiniLM** embeddings and interpretable models, cutting review time by **40%**

Webminix Consulting – Software Engineer, Machine Learning Sep 2023 – Mar 2024
– Delivered ML-powered forecasting and anomaly detection systems on **AWS**, cutting client latency by **30%**
– Synthesized domain-specific datasets and orchestrated pipelines, accelerating model rollout by **25%**
– Automated lifecycle management, driving **15%** accuracy gains and minimizing human oversight by **20%**

TSEC – ML Engineer and Researcher May 2022 – Jul 2023
– Built ML pipelines for environmental and agricultural forecasting; achieved **92%** accuracy on regional rainfall using **Random Forest**, and optimized **CNNs** on **54K+** advanced blending and regularization for superior disease detection

Croblaze – Software Engineer Dec 2021 – Mar 2022
– Architected secure **Django** APIs for authentication and data sync, powering **10K+** daily user interactions; integrated **Stripe** and **SendGrid** to automate workflows (**+50%** efficiency) and reduced deployment issues by **35%**

PROJECTS

LeetPrep+: Interview Preparation Assistant
– Built **Django-React** platform with **LangChain** and **OpenAI**, delivering **500+** coding solutions
– Automated problem tagging, difficulty scoring, and walkthroughs using **LLMs**, reducing manual prep time by **65%**

ResearchMind: AI Research Assistant
– Engineered a **Django**-based **RAG** system leveraging **LangChain**, **ChromaDB**, and **AWS** for semantic retrieval
– Enabled smart summarization and contextual Q&A on research papers, reducing response latency by over **60%**
– Deployed scalable backend on **EC2** with **S3** and **ChromaDB**-powered semantic retrieval for fast **LLM**-driven Q&A

NeuroScoop: News Article Engine
– Pioneered a scalable recommendation engine for **200K+** news articles using metadata like authors and headlines
– Leveraged **MiniLM** embeddings with **ChromaDB** for semantic search, increasing article match accuracy by **30%**