

AADESH SALECHA

Applied AI for Climate, Planetary Intelligence & Energy · Stanford MS CS

asalecha@stanford.edu • [Linkedin: aadesh-salecha](https://www.linkedin.com/in/aadesh-salecha) • [Website: aadeshsalecha.github.io](https://aadeshsalecha.github.io) • +1 (612) 391 6966

PROFESSIONAL EXPERIENCE

[Hyfin](#)

San Francisco, CA

Founding Engineer

May 2026 – Present

Technologies: *Agentic AI, RAG, LLMs, Web Scraping, Data Pipelines*

- Building **GAIA**, a fintech platform to synthesize asset performance, and market data for clean energy loan origination
- Designed **agentic data enrichment pipelines** combining **LLMs and web scraping** to create data for a new asset class with no track record
- Architecting **risk intelligence tools** targeting the **\$4T+ clean energy financing gap** across South Asia and Africa
- Implementing AI-native workflows and processes to improve productivity across all teams

[Amazon \(AWS\)](#)

Seattle, WA

AI/Machine Learning Engineer

May 2025 – Sept 2025

Technologies: *Large Language Models, RAG, Agentic AI, Prometheus, Grafana, CloudWatch*

- Reduced GPU energy wastage, lowering operational carbon footprint by **200 kg CO2e/day** via efficiency modeling and anomaly detection
- Designed an agentic AI system combining **telemetry, time-series signals, and RAG-based diagnosis** to auto-resolve ML infrastructure failures
- Optimized distributed compute scheduling using ML-based pattern detection, analogous to **demand-response optimization** in energy systems

[Stanford HAI Institute](#)

Palo Alto, CA

AI/Machine Learning Researcher

May 2023 - May 2026

Technologies: *Remote Sensing, Google Earth Engine, ArcGIS Pro, Computer Vision, PyTorch*

- Enabling verification of 5+ Gt CO2/year sequestration potential from global cropland tree integration in collaboration with [Prof. David Lobell](#) and Center on Food Security and the Environment
- Developed geospatial ML pipelines using **Google Earth Engine, Landsat**, and **Sentinel-2** data to do site detection of tree-species in the Global South
- Won Stanford Green AI Hackathon by building geothermal site prediction system using **AlphaEarth satellite embeddings** with 93% AUC ([Demo link](#))
- Developing **LLM evaluation metrics** to measure **behavioral** biases based on psychological principles (published in [WIRED](#), and [PNAS](#))

[DraftKings, Inc](#)

Boston, MA

Senior Software Engineer

Dec 2021 - Jun 2024

Technologies: *C#, .NET, ReactJS, AWS, Terraform, Kubernetes*

- Developed a **sharded database** to store millions of user transactions with support for **cryptocurrencies**
- Engineered **full-stack** solutions, including **REST APIs** to handle billions of requests with <200ms latency
- **Spearheaded cross-functional teams** and collaborated with Product Managers to elevate user experience and reduce dropout by 40%
- Built data pipelines that parallel patterns in **climate data ETL, satellite data processing**, and large-scale geospatial model deployment

EDUCATION

Stanford University

Master of Science in Computer Science

Sep 2024 - May 2026

Relevant Coursework: Machine Learning, Natural Language Processing, Artificial Intelligence, Database Systems

University of Minnesota

Bachelor of Science in Computer Science

Aug 2018 - May 2021

GPA: 4.0 / 4.0, Summa cum laude

SKILLS

Geographic Information Systems: Remote Sensing, ArcGIS Pro, Google Earth Engine, xarray, Sentinel

Programming Languages: Python, SQL, Java, C, C++, C#, MATLAB, HTML, CSS, JavaScript, LaTeX

Cloud Services: AWS (EC2, S3, DynamoDB, MSK), Azure (VMs, Cosmos DB), GCP

Frameworks & Tools: Power BI, .NET, ReactJS, Terraform, Kubernetes, Snowflake, Flask, Django

Machine Learning & AI: Deep Learning, PyTorch, TensorFlow, JAX, Keras, Hugging Face, Scikit-learn, Numpy, Pandas

Web & Automation: BeautifulSoup, Selenium, Urllib

Development & Collaboration: Agile Scrum practices, Github, Atlassian Suite (Jira, Confluence, Bitbucket), Linux

PRESS COVERAGE

WIRED Magazine: [Chatbots, Like the Rest of Us, Just Want to Be Loved](#)

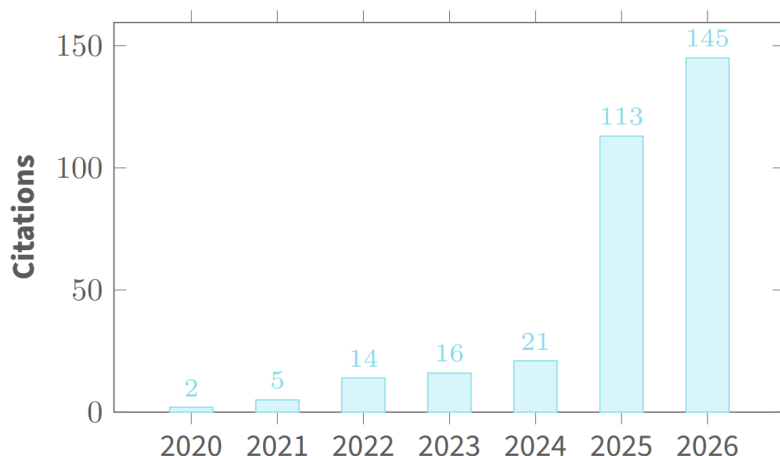
Stanford Daily Newspaper: [‘AI Into the Wild’ connects Stanford to local flora and fauna at Jasper Ridge](#)

HONORS

- Winner of Stanford's First Green AI Hackathon (geothermal identification pipeline: [findgeothermal.com](#))
- ExxonMobil Scholarship (\$5,000) • UROP Research Scholarship (\$3,500) • Tom Niccum Grant (\$2,000)
- Google Research Mentorship Nominee • Dean's List (2018, 2019, 2020)

PUBLICATIONS

Complete List: bit.ly/ASGoogleScholar



Total Publications: 16
Total citations: 320
h-index: 6

Highlights:

- **Large Language Models Show Human-like Social Desirability Biases in Survey Responses**
Salecha, A., Ireland, M., Subrahmanya, S., Sedoc, J., Ungar, L., and Eichstaedt, J.
Proceedings of the National Academy of Sciences (PNAS Nexus) (2024).
academic.oup.com/pnasnexus/article/3/12/pgae533/7919163
- **Fake News Spreader Detection using Trust-based Strategies in Social Networks with Bot Filtration**
Rath, B., Salecha, A., et al. *Social Network Analysis and Mining* (2022). doi.org/10.1007/s13278-022-00890-z
- **Monitoring the opioid epidemic via social media discussions**
Smith, D. A., Salecha, A., et al. *Proceedings of the National Academy of Sciences (PNAS)* (2024).
medrxiv.org/content/10.1101/2021.04.01.21254815v2