

Paul Prae

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PROFESSIONAL SUMMARY

AI and data engineering leader with 13+ years building production systems across healthcare, life sciences, and financial services. Currently architecting cloud-native data infrastructure and HIPAA-compliant AI agents at Arine, a healthcare platform serving 45+ health plans and over 30 million members. Enterprise delivery experience includes AI/ML solutions architecture at Amazon Web Services, healthcare AI leadership at Booz Allen Hamilton (\$9B+ revenue), and analytics consulting at Slalom generating \$2M+ in engagement revenue. Brings deep expertise in data engineering, cloud architecture, ML systems, and AI governance to help organizations ship AI products in regulated environments.

PROFESSIONAL EXPERIENCE

Staff AI DataOps Engineer

Arine | Remote | Sep 2025 – Present

- Managed enterprise data platform on Snowflake and AWS, processing petabytes of healthcare data from hundreds of sources supporting Arine's AI-driven medication-optimization platform (45+ health plans, >30M members, >40M recommendations annually)
- Designed the AI DataOps Toolkit – an agentic development framework encompassing AI governance standards, reference architectures, and change management procedures for the data services organization
- Developed HIPAA-compliant coding assistants that transformed data operations into an AI-augmented practice, including a Data Engineering Agent that autonomously generated, deployed, and tested ETL pipelines
- Built observability pipeline to monitor Arine's autonomous pharmacist AI agent – ingesting production behavior data from DynamoDB into Snowflake, transforming with dbt, and visualizing in QuickSight dashboards
- Led AI enablement workshops training groups of up to 100 engineers on AI-first software development practices

Chief AI Architect, Senior Manager

Booz Allen Hamilton | Atlanta, GA | Jul 2024 – Mar 2025

- Led AI and analytics solution development at a Fortune 500 consulting firm (27,000+ employees, \$9B+ revenue), designing products harnessing clinical, behavioral, and genomic data for population health and predictive medicine
- Collaborated with cross-functional teams of engineers, data scientists, and domain experts to deliver AI solutions addressing algorithmic bias and data privacy risks in FedRAMP and HIPAA-compliant environments
- Advised healthcare and life science clients on AI adoption strategy, translating regulatory requirements and clinical needs into deployable solutions

Neuroinformatics Data Platform Architect

TReNDS Center | Atlanta, GA | Jan 2022 – Sep 2023

- Architected COINSTAC, an open-source platform for decentralized neuroimaging and genomics research with differential privacy for PHI protection, published in *Frontiers in Neuroinformatics*
- Built GPU-focused compute infrastructure for deep learning workloads and managed AWS cloud architecture, decoupling system components to leverage managed services
- Drove commercialization through SBIR grant writing, open-source contributor recruitment, and industry partnerships

Chief AI Officer, Founder

Hyperbloom | United States | Jan 2020 – Sep 2025

- Grew AI consulting business to \$1.4M ARR from a \$40K initial investment, delivering cloud-based AI and data solutions across healthcare, life science, and financial services
- Led teams of sales coordinators, account managers, and solutions architects through full sales cycles while building partnerships with research organizations and technology vendors
- Architected disaster recovery solutions for clinical trial software supporting 10,000+ research sites in 45 countries with 5.5 million remote monitoring activities monthly

Enterprise AI and ML Solutions Architect

Amazon Web Services | Atlanta, GA | Aug 2018 – May 2021

- Managed portfolio of 10+ enterprise accounts including Cox Enterprises, Cox Automotive, Equifax, NCR, Accenture, and Deloitte, delivering prescriptive AI/ML architecture guidance
- Delivered technical white papers, reference architectures, and presentations at public and private AWS events as a nationally recognized AI/ML subject matter expert
- Built deep executive relationships to define technical and business strategies including go-to-market plans, cost optimization, and technical recruiting

Senior AI Engineer

NeuroLex Labs | Atlanta, GA | Jan 2018 – May 2020

- Architected automated ML pipelines for healthcare voice computing – collecting, cleaning, training, and deploying models processing text and audio data for neurodegenerative disease prediction
- Drove TDD implementation across the engineering team and mentored fellows in the Tribe program, a global fellowship for neurodegenerative disease research using voice biomarkers

Advanced Analytics Consultant

Slalom Consulting | Atlanta, GA | Jul 2015 – Jan 2018

- Delivered 7+ client engagements generating \$2M+ in revenue, including a statewide behavioral health demand forecasting system across dozens of facilities in Georgia
- Grew the AI consulting practice through workshops, marketing, and sales support; recognized nationally as a subject matter expert in NLP and machine learning

Software Engineer

Red Ventures | Fort Mill, SC | Mar 2014 – Jul 2015

- Engineered full-stack marketing platform serving 16+ Fortune 500 clients including DirecTV, Verizon, AT&T, and Liberty Mutual, maintaining hundreds of high-traffic consumer-facing websites

Senior Support Engineer

Microsoft | Charlotte, NC | Jul 2012 – Mar 2014

- Delivered advanced technical support for Fortune 100 clients including Chevron, Shell, Walmart, Disney, and Bank of America across hundreds of high-impact web applications and server farms
- Earned nomination for Global Business Support's "Entrepreneur of the Year" (2013); graduated from the Microsoft Academy for College Hires (MACH Program)

EDUCATION

Bachelor of Science in Computer Science (AI Emphasis) & Bachelor of

Arts in Cognitive Science (AI Foundation) University of Georgia | 2008 – 2012 Graduated Cum Laude | Dean's List

TECHNICAL SKILLS

AI & Machine Learning: Generative AI, Large Language Models (LLMs), Multi-Agent Systems, Natural Language Processing, Machine Learning, MLOps, Deep Learning, Predictive Analytics, Prompt Engineering, Conversational AI

Cloud & Infrastructure: AWS (Bedrock, SageMaker, ECS/EKS, Lambda, Step Functions, S3, Glue, QuickSight, DynamoDB), Microsoft Azure, Docker, Distributed Systems

Data Engineering: Snowflake, PostgreSQL, dbt, Apache Kafka, ETL/CDC Pipelines, Data Governance, Data Privacy, HIPAA Compliance

Programming Languages: Python, SQL, JavaScript, C#, Bash, PowerShell

AI Tools & Frameworks: Cursor AI, Claude Code, GitHub Copilot, LangChain, Ollama, n8n, Neo4j, Open WebUI

Leadership & Strategy: Engineering Team Management, AI Governance, Solutions Architecture, Executive Coaching, Pre-Sales Engineering, Agile/Scrum

CERTIFICATIONS

- **AWS Certified Machine Learning Engineer** – Amazon Web Services (Sep 2025)
- **AWS Certified AI Practitioner** – Amazon Web Services (Sep 2025)
- **AWS Certified Machine Learning - Specialty** – Amazon Web Services (Jan 2020)
- **AWS Certified Solutions Architect** – Amazon Web Services (Jul 2018)

PROJECTS

Modular Earth

Founded a not-for-profit organization building free, open-source AI agents to help working-class entrepreneurs generate wealth. Active projects include a career assistant and financial planning assistant built on local-first, privacy-preserving architectures using Ollama, LangChain, n8n, and Neo4j. Vision: deploy AI-as-a-public-service in libraries across the United States.

PUBLICATIONS

[Enhancing Collaborative Neuroimaging Research: Introducing COINSTAC Vaults for Federated Analysis and Reproducibility](#)
Frontiers in Neuroinformatics (Jun 2023). Co-authored peer-reviewed paper on federated analysis capabilities enabling collaborative neuroimaging research without sharing raw PHI data. Demonstrated reproducibility improvements and increased sample sizes through decentralized computation with differential privacy.