

Joshua Seideman, Ph.D.

Product Manager

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Product Manager with 5+ years of experience driving roadmaps, prioritization, and delivery across a portfolio of data analytics products, including AI-powered solutions with LLM integration and semantic search. Manages project managers and product owners across concurrent initiatives. Combines AI-assisted development with hands-on coding to accelerate prototyping. PhD in neuroscience. PMP-certified.

Work Experience

Deloitte Consulting

09/2021 – Present

Manager, Product Management

- Owned product roadmap and drove product requirements for a portfolio of 30+ data analytics products, prioritizing features and release timelines based on user needs and capacity
- Oversaw delivery across concurrent workstreams, managing project managers and product owners to align priorities, timelines, and dependencies
- Drove execution for key initiatives by leading cross-functional teams (engineering, data science, design), defining scope and timelines, and ensuring on-time delivery
- Leveraged AI-assisted coding (OpenAI Codex; ChatGPT) to prototype solutions, resolve technical blockers, and accelerate development timelines
- Led delivery of an AI-enabled analytics product that used semantic search and LLM-based classification to evaluate scientific documents against user-defined statements (Azure, PostgreSQL, React)
- Delivered an [ML-based classification tool](#) that recommends scientific codes for grant applications, achieving 85% accuracy, recall, and precision and reducing manual curation effort
- Led development of a data anomaly detection product, defining requirements and guiding system design to monitor data quality and surface KPIs through dashboard (Tableau, Power BI)

Lexical Intelligence

08/2020 – 09/2021

Consultant – Scientific Portfolio Analyst

- Conducted user research to define requirements and scope for web-based analytics products
- Served as project manager for select initiatives, coordinating analysts and ensuring timely delivery
- Contributed to a publicly published strategic plan for the National Institutes of Health (NIH) Office of Portfolio Analysis, authoring a [section](#) on measuring data and resource sharing
- Delivered analytical products (slide decks, datasets) to support portfolio analysis and decision-making
- Wrote custom Python code to clean, analyze, visualize, and statistically summarize large datasets

Wake Forest Graduate School

08/2014 – 07/2020

Graduate Research Assistant (PhD)

- Designed and conducted cognitive and computational neuroscience experiments
- Wrote [federally-funded research grant proposal](#) – defined scope, methods, KPIs, timeline, budget
- Designed and developed real-time research software enabling multimodal data acquisition, interactive visual interfaces, and automated experimental workflows (MATLAB)
- Gathered, analyzed, and modeled behavioral and neural data (MATLAB)
- Applied advanced statistical methods – bootstrap, permutation test, linear regression, AUROC
- Wrote [five first-author publications](#) — including two in **Nature Communications** ([pdf-1](#), [pdf-2](#))

Independent Projects

Personal Website & AI-Chat Assistant – seidemanphd.com

05/2026 – Present

- Defined product requirements and designed the site for a personal portfolio with an integrated AI chat assistant; used Claude and ChatGPT to evaluate architectural options and iterate on design
- Directed AI-assisted development (Codex) to implement, debug, and iterate on a React/Vite system
- Built a grounded AI chat assistant (OpenAI API, streamed responses, private knowledge base), authoring the prompt and guardrail logic to keep responses on-topic and prevent disclosure of sensitive content

Instagram Bot – Web Automation System with AI-Enabled Content Generation

11/2024 – 05/2026

- Designed and built an end-to-end web automation system (Python, Selenium) to orchestrate daily content generation, posting, and engagement workflows without manual intervention
- Integrated OpenAI and Gemini APIs for multimodal content generation, and for image-based classification to identify relevant accounts and enable targeted engagement
- Leveraged AI-assisted development (ChatGPT) to rapidly prototype and implement system components
- Deployed and operated the system on Google Cloud Platform (GCP) with scheduled execution, enabling continuous, unattended operation
- Grew account to 2,000+ followers with fully automated content generation and engagement workflows

Skills

Product & Delivery: Product roadmap ownership, requirements and KPI definition, backlog prioritization, stakeholder management, project delivery and execution (Agile), people management, cross-functional coordination (engineering, design, data science)

Programming & Data: Python, SQL, MATLAB; data processing, exploratory data analysis, data modeling, experimental design, hypothesis testing, statistical analysis, data visualization

AI / ML: LLMs (OpenAI, Anthropic, Gemini), prompt engineering, classification (using classical ML and LLM-based models), model evaluation (precision, recall, accuracy), computer vision (API-based)

Cloud & Systems: Google Cloud Platform (GCP), Amazon Web Services (AWS), Microsoft Azure, PostgreSQL; LLM API integration (OpenAI, Gemini), system design (high-level), cloud deployment

BI Tools: Tableau, Power BI (product ownership and delivery), dashboard requirements, KPI design

Certifications

- ◆ Project Management Professional (PMP)
- ◆ Microsoft Power BI Data Analyst Associate (PL-300)
- ◆ Microsoft Azure AI Engineer Associate (AI-102)

Education

PhD, Neuroscience – Wake Forest University

08/2014 – 07/2020

BA, Psychology. BA, Biology – Boston University

09/2006 – 05/2010

Published Articles

Seideman JA, Stanford TR, & Salinas E. (2022). A conflict between spatial selection and evidence accumulation in area LIP. [*Nature communications*, 13:4463.](#)

Seideman JA, Stanford TR, & Salinas E. (2021). The spatial signal in area LIP is not an obligatory correlate of perceptual evidence during informed saccadic choices. [*bioRxiv*, 2021-02.](#)

Seideman JA. (2020). The roles of frontal and parietal neurons in informing perceptual choices made under urgent temporal uncertainty ([Doctoral dissertation](#), Wake Forest University). ProQuest, 28088659.

Stonebarger GA, Urbanski HF, Woltjer RL, Vaughan KL, Ingram DK, Schultz PL, Calderazzo SM, **Seideman JA**, Mattison JA, Rosene DL, Kohama SG. (2020). Amyloidosis increase is not attenuated by long-term calorie restriction or related to neuron density in the prefrontal cortex of extremely aged rhesus macaques. [*GeroScience*, 42, 1733-1749.](#)

Seideman JA, Salinas E, Stanford TR. (2019). Perceptual modulation of parietal activity during urgent saccadic choices. [*bioRxiv*, 2019-12.](#)

Seideman JA. (2019). A dynamic, imperturbable link between midbrain activity and saccade velocity. [*Journal of Neurophysiology*, 123\(2\), 451-453.](#)

Salinas E, **Seideman JA**, Stanford TR. (2018). When the simplest voluntary decisions appear patently suboptimal. [*Behavioral and Brain Sciences*, 41:e240.](#)

Seideman JA, Stanford TR, Salinas E. (2018). Saccade metrics reflect decision-making dynamics during urgent choices. [*Nature communications*, 9:2907.](#)

Published Abstracts / Presentations

Seideman J, Do W, Tembo M, Opsahl-Ong L, Meyer A, Saraiya D, Footer K, Desai A, Lee L, Nguyen L, Croghan J, Rosenthal A, Tartakovsky M. Supervised Machine Learning for Scientific Coding Assistance. NIH Artificial Intelligence Symposium Abstracts 2025, Online.

Mollerus P, **Seideman J**, Saraiya D, Meyer A, Footer K, Chang R, Nguyen L, Croghan J, Rosenthal A, Klinkenberg L, Meyers J. Scientific Review NLP Conflict of Interest Identification. NIH Artificial Intelligence Symposium Abstracts 2025, Online.

Salinas E, **Seideman J**, Stanford T. Spatial differentiation in area LIP dissociated from evidence accumulation. *COSYNE Abstracts* 2021, Online.

Seideman J, Salinas E, Stanford T. Rapid perceptual modulation of PPC activity predicts concomitant changes in urgent-decision accuracy. *COSYNE Abstracts* 2019, Lisbon, PT.

Oor EE, **Seideman JA**, Stanford TR, Salinas E. Target-feature and outcome histories prime perceptual speed and efficiency in an urgent visual search task. Prog. No. 061.22. *Society for Neuroscience*, 2018.

Seideman J, Stanford T, Salinas E. Saccade kinematics communicate covert decision-related computations during urgent choices. *COSYNE Abstracts* 2018, Denver, CO, USA.

Seideman J, Salinas E, Stanford TR. Sensory cue processing time modulates LIP neuronal activity in parallel with urgent choice accuracy. Prog. No. 060.25. *Society for Neuroscience*, 2017.

Seideman J, Scerra VE, Salinas E, Stanford TR. Saccade metrics reflect decision-making dynamics during

urgent choices. Prog. No. 717.05. San Diego, CA: *Society for Neuroscience*, 2016.

Putrino D, Wong YT, Weiss A, **Seideman J**, Pesaran B. Using virtual reality environments to train high-dimensional control of a virtual upper limb prosthetic. Prog. No. 80.16. *Society for Neuroscience*, 2013.

Wylie A, **Seideman J**, Yu D, Blackwell C, Mishkin M, Turchi J. Dopaminergic and cholinergic mediation of within session concurrent discrimination learning. Prog. No. 580.04. *Society for Neuroscience*, 2013.

Awards and Honors

Outstanding Performance Award, Deloitte Consulting	2023, 2026
National Institute of Allergy and Infectious Diseases (NIAID) CIO Award	2023
NIH National Research Service Award – Predoctoral Fellowship (F31 Grant)	2018 – 2020