

AMANDA POGUE, PHD

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SUMMARY

- Passionate about good product design and building cross-functional teams that encourage effective communication between engineering and business
- Self-motivated, problem-solving, and collaborative scientist with excellent communication skills

EXPERIENCE

ActionIQ

New York, NY

Data Scientist - Product Analytics

Nov 2020 to present

- Built data pipelines and dashboards tracking Business KPIs and Engineering metrics
 - Set up workflows on Databricks, version controlled in Git, that collects data from AWS Cost Explorer, RDS, Datadog, MongoDB, and other APIs to update and add data to delta tables that underlie the following dashboards
 - Built an analytics dashboard used by the professional services team to track customer usage, as well as bespoke pipelines and dashboards for the product management team to track product development KPIs, and decisioning for product development.
 - Introduced Heap and AppCues for UI usage tracking and onboarding - manage tagging with product and design teams, and build dashboards for professional services, accounting, revops, product, and engineering
 - Built a dashboard tracking costs and revenue, identified drivers of costs, and made recommendations for reducing waste (including running experiments on the expected cost reduction / impact on revenue of upgrading to Spark 3, removing specific EC2 instances from the request pool, testing the reliability of AZs, etc, contributing to a reduction of ~\$9M in annual AWS costs, and increased margin)
- Developed a cost algorithm that converts platform usage into a compute credit, accounting for expected waste and desired margins. Coordinated with engineering to test and develop the metric used to track usage, the data pipeline for tracking the credits, and rolling out domain knowledge with the customer and support teams (including documentation on the development of the algorithm, how to query the metric, and how to troubleshoot the pipeline).
- Tech lead for AI products: led a technical discussion forum on picking vector storage systems, embedding models, AI platforms, and models for the future of AI at ActionIQ. Piloted several POC projects including RAG-based AI Object Search and AI Audience Explainer. In the course of development, tested the data passed to the model, iterated on prompts, model settings, designed experiment to test quality of results, began developing automated testing for maintenance and ongoing release testing, coordinated between QA, security, legal, and engineering to get product to private preview, spearheaded discussion on ethics in AI and the role of consent in best data practices.
- Added functionality to production ML pipeline for debugging, handling imbalanced classes, and operate as the SME and project manager for bringing new features to the pipeline, in addition to developing and deploying models for customers
- Involved in company culture and community: co-organized the summer internship program, mentored a data science intern, co-lead for biannual hackathon, have lead culture chats and hosted external speakers

SparkBeyond

New York, NY

Senior Data Scientist - Product Team Lead

Sept 2018 to Sept 2020

- Americas Product Team Lead: involved in product development, proposals and strategies, and collecting / prioritizing client feedback. Regularly consulted with cross functional teams of executives, product managers, engineers, and UX designers.
 - Managed a team of 7 regional stakeholders - responsible for role assignments, task allocation, monthly check-in reviews, reporting feedback on their behalf to the global product team, and advocating on their behalf in product planning
 - Communicated key decisions to the business during weekly office meetings, led weekly data science team stand up meetings, organized a weekly info share sessions, and coordinated usability and bug testing sessions
- Lead and support data scientist for several Fortune 500 companies, providing support in ETL, data preparation, constructing machine learning pipelines, and implementing models into production. Including:
 - Preliminary data analysis, feature generation, feature explanations (e.g., visualizations and feature breakdowns to explain insights from data), and model comparisons for: disease risk models, exploring changes in sales for CPG clients, and fraud detection in pharmaceutical rebates
 - Supported major clients after initial engagements, providing office hours, technical support, project advice, advocating on behalf of their field requests, and supporting new use cases
- Contributing researcher on the AI team, involved in the natural language processing (NLP) and machine learning teams, building tools using state of the art models in NLP and for understanding relational graph data.

Insight

Data Science Fellow

New York, NY

June 2018 to August 2018

- Consulted with an education-based start-up to produce an AI chatbot designed to provide teachers with an efficient way to respond to student reflections. The start-up was awarded a grant based on the results of this work.
- Engineered a machine-learning pipeline using NLP and classification techniques to categorize student reflections and generate appropriate feedback. This model also used the Google Natural Language Cloud API to measure the sentiment of student responses to provide feedback that captures students' emotional responses.

University of Rochester

Graduate Research Assistant, Senior Thesis Supervisor, RA Supervisor

Rochester, NY

Sept 2013 to May 2018

- Designed experiments exploring language and cognition, that were conducted using Amazon's Mechanical Turk and in the lab.
 - Created surveys and questionnaires using Qualtrics with custom javascript, and extensive flow design
 - Conducted data analyses (logistic, ordinal, and linear regression; model comparison; mixture modeling, non-parametric stats: fisher's and chi-squared test, binomial test, KS test, etc) and data visualization using R, and produced scripts for batch task efficiency in python
- Managed and mentored ~15 students working on projects in the lab, including training, organizing bi-weekly lab meetings, and provided guidance at all steps of the research process.
- Organized a bi-weekly meeting and a seminar talk series of interdisciplinary researchers.

EDUCATION

- PhD, MA, Brain and Cognitive Sciences, University of Rochester, 2018
- MA, Psychology, University of Waterloo, 2013
- HBS, Psychology, Cognitive Science, Philosophy, University of Toronto, 2009

TALKS

- SparkBeyond's AI-Powered Problem Solving Platform, AI World Conference and Expo 2019
- Knowledge Mining (KnoMi) to Bridge the Evidence-to-Policy Gap, Bloomberg's Data for Good Exchange 2019

SKILLS

Programming Languages Python, SQL, Scala, R, Java, HTML, JavaScript

Software & Package Familiarity Jupyter, Pandas, SciKit-Learn, PySpark, MLFlow, MySQL, Databricks, Github, IntelliJ, PyCharm, AWS Bedrock, AI Models (DBRX, ChatGPT, Anthropic Claude), MongoDB, Datadog, Jira/Confluence, Miro, Figma, Snowflake, Heap, Pendo, AppCues

Languages English: native. French: elementary proficiency. Spanish: elementary proficiency.

Interests data analysis & viz, product design, ethics, diversity and inclusivity in Tech, volunteering, printmaking, swimming, biking, weight lifting, knitting, indie/lofi music, foreign television, languages

VOLUNTEERING AND COMMUNITY ENGAGEMENT

Undocumented Women's Fund Volunteer Data Analyst (2022-present) - reorganized data structure and rebuilt forms for event registration, contact history, etc, and built out reporting on: event attendance, individuals assisted, etc for grants and team knowledge.

Refugee Resettlement - Family & Community Services Computer Lab Volunteer (2017-2018) - volunteered with the refugee resettlement organization, met with new immigrants to the community to provide support in constructing a resume, applying for employment, and preparing for interviews.

Working Centre Garden and Cafe Volunteer (2011-2013) - volunteered at a cafe training folks who have no work experience how to work in a retail setting, and in a greenhouse/garden as a volunteer gardener (sales of vegetables and other garden goods provided financial support for the organization)