## Contact

monideep2255@gmail.com

www.linkedin.com/in/monideepc (LinkedIn)


## Top Skills

Retrieval-Augmented Generation (RAG)

LangGraph

LangChain

## Languages

English (Native or Bilingual)

French (Limited Working)

Hindi (Native or Bilingual)

## Certifications

Canadian Workplace Readiness - Level 2

Succeeding in Web Development: Full Stack and Front End

Graduate Leadership Institute

IAB Digital Marketing and Media Foundations Certification

## Honors-Awards

United Way Hackathon: 3rd Place

Capstone: Automatic Speech Recognition For English Impaired Speech: 2nd Place

Responsible AI Poster Presentation: 1st Place

U.S. Digital Corps

## Publications

Age-Related Differential Stimulation of Immune Response by Babesia microti and Borrelia burgdorferi During Acute Phase of Infection Affects Disease Severity

Your voice is your voice: Supporting Self-expression through Speech Generation and LLMs in Augmented and Alternative Communication

# Monideep (Moni) Chakraborti

Product Manager | AI, Accessibility, and Search | NIH + Startup Experience

Washington DC-Baltimore Area

## Summary


I'm a Product Manager focused on building technology that makes search, communication, and learning more intelligent and inclusive. At NCBI, NIH, I'm helping modernize biomedical search infrastructure used by 6+ million people daily. My work spans analytics pipelines, user research, and roadmap development for a next-generation semantic search experience that explores the use of GenAI and large language models (LLMs).

Previously, I worked with a startup building speech accessibility tools using automatic speech recognition (ASR) systems and LLMs to support real-time communication for users with atypical speech. I also design side projects that apply GenAI to learning and decision-making problems, integrating prompt engineering, knowledge graphs, and real-time data.

With experience across government platforms, early-stage startups, and applied machine learning (ML) research, I bring a product mindset grounded in execution, user empathy, and technical fluency.

I'm open to roles in product management, applied AI, or innovation-focused teams building meaningful, user-centered systems. Let's connect if you're building in these spaces.


## Experience

### The National Institutes of Health

Product Manager, Next Generation Search

August 2024 - Present (11 months)

Bethesda, Maryland, United States

• Leading product roadmap for modernizing NIH's biomedical search platform used by 6+ million users daily

Evaluation of Nucleoside Analogs as Antimicrobials Targeting Unique Enzymes in Borrelia burgdorferi

• Built automated analytics pipelines (AppLog, Google Search Console, Looker Studio) to identify user behavior patterns and content gaps across 30+ databases
• Conducted cross-team interviews to surface core friction points and shape MVP requirements, personas, and problem statements
• Drafted AI search prototype memo exploring SPARQL, semantic reasoning, and LLM-powered chatbot interfaces for internal testing
• Presented roadmap insights to NCBI, NIH leadership, aligning product, and platform teams on search strategy

### U.S. Digital Corps
Product Fellow
August 2024 - Present (11 months)
Washington, District of Columbia, United States

### Happy Prime Inc
Product Manager
July 2023 - August 2024 (1 year 2 months)
Vancouver, British Columbia, Canada

• Led end-to-end development of a GenAI-powered mobile app enabling real-time speech-to-text communication for users with atypical speech
• Defined and delivered 3 core MVP features using large language models (LLMs), automatic speech recognition (ASR), and user accessibility feedback
• Conducted user and competitive research across 15+ assistive tech companies and 10+ industry reports to identify unmet needs and shape product direction
• Ran Agile sprints with engineers and designers, driving iterative releases and product improvements grounded in data-driven user feedback

### Northeastern University
Machine Learning Research Assistant
April 2023 - July 2023 (4 months)
Vancouver, British Columbia, Canada

• Led the implementation of a Python-based spelling correction algorithm to enhance the accuracy of a speech recognition system (wav2vec2) for English-impaired speech, resulting in a 50+ % improvement over the baseline model's performance
• Presented research findings at the Responsible AI Symposium in Vancouver through a poster presentation, securing 1st place out of 10 teams

# Education

## Northeastern University

Master of Science - MS, Computer Science, Specialization in Artificial Intelligence and Data Science · (September 2020 - December 2022)

## Rutgers University - Newark

Master of Science - MS, Biomedical Sciences, Concentration in Pharmacological Sciences · (August 2016 - October 2018)

## Boston University

Bachelor of Arts - BA, Biochemistry and Molecular Biology · (September 2011 - January 2016)