

Kshitij Dani

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LinkedIn

GitHub

EDUCATION

University of Washington

M.S. Information Management

GPA: 4.00/4.00

Seattle, WA

2025 - Present

BITS Pilani, Goa

B.E. Computer Science + M.Sc. Mathematics

GPA: 8.93/10

India

2015 - 2020

EXPERIENCE

Graduate Researcher – AI Systems (eScience Institute, SSEC)

2025 - Present

- Building an LLM-powered productivity agent to help Research Software Engineers (RSEs) align with primary researchers across projects
- Designed system to ingest meetings, chats, and emails to track decisions, surface action items, and maintain shared project context
- Automated workflows by generating GitHub issues, discussions, and assisting with pull request reviews
- Developed agent behaviors to prompt clarifying questions and reduce ambiguity in cross-functional collaboration
- Deployed via SSEC LiteLLM gateway; built backend using FastAPI and frontend using React
- Designed and implemented evaluation framework for mental health conversational agents to assess progression toward psychological safety
- Built modular system using Pydantic schemas, LiteLLM gateway, and LLM-based judges for structured evaluation of conversations
- Developed components for synthetic persona generation, conversation simulation, and moderation pipelines
- Enabled benchmarking of frontier models on safety, response quality, and alignment in sensitive user interactions

Microsoft – Software Engineer II (Viva Insights)

2023 - 2025

- Built backend platform powering Copilot Dashboard for enterprise leaders; reduced infrastructure cost by **90%**
- Developed analytics experiences in Microsoft 365 Admin Center to monitor Copilot adoption and deployment across organizations
- Refactored email infrastructure to support modular data integration across services, improving developer productivity
- Led security improvements as part of the v-team by modernizing authentication workflows and enforcing secure design practices
- Improved certificate lifecycle management by implementing automated renewal mechanisms, reducing manual overhead and outage risk

Microsoft – Software Engineer (Viva Insights)

2021 - 2023

- Led development of large-scale email experiences reaching **60M users/month**
- Migrated access tokens to secure and compliant authentication standards, strengthening system security posture
- Automated backend certificate management workflows to improve reliability and reduce operational burden
- Built backend services for Microsoft Teams features to improve engagement in hybrid work environments
- Contributed to cross-service security initiatives ensuring compliance with internal standards

Microsoft – Software Engineer (MileIQ)

2020 - 2021

- Owned reporting microservice (Django) used by **500K+ premium users**
- Managed Azure Kubernetes deployments, CI/CD pipelines, and system monitoring using New Relic
- Improved reliability and deployment efficiency of backend microservices

PROJECTS

SecROI – AI Security Analysis Agent

GitHub

- Built LLM-powered system to analyze GitHub repositories and detect security vulnerabilities
- Extracts API endpoints, identifies attack vectors, and generates severity-based remediation suggestions
- Implemented structured reporting pipelines (CSV outputs) for actionable insights
- Enabled automated repository scanning through user-submitted links

Social Media Analysis – Ideological Clustering on Bluesky

GitHub

- Analyzed engagement across 2,900+ users and 77 feeds to study ideological clustering
- Used LLM-based classification to infer political orientation from bios and posts
- Applied embeddings and cosine similarity to measure semantic relationships and clustering behavior
- Identified filter bubble patterns and thematic overlap across communities

Viva Insights Analyst Copilot (Hackathon Project)

- Built GPT-based copilot using OpenAI APIs with RAG to generate grounded enterprise insights
- Reduced hallucinations through structured retrieval and prompt engineering

SKILLS

Languages: Python, C#, JavaScript, SQL, C/C++

Frameworks: FastAPI, .NET, React, Django, Node.js

AI/ML: LLMs, RAG, LangChain, LangGraph, NLP, Embeddings, LLM Evaluation

Cloud: Azure, Kubernetes, CI/CD, Distributed Systems

Security: Authentication, Access Tokens, Certificate Management, Secure System Design

RELEVANT COURSEWORK

Data Structures & Algorithms, System Design, Cloud Computing, Cybersecurity