

# Shlok A. Nanani

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## EDUCATION

### Northeastern University, Khoury College of Computer Sciences

Boston, MA

#### Candidate for B.S. in Computer Science

August 2023 - May 2027

Concentration: Artificial Intelligence

- o **GPA:** 3.9/4.00, *Dean's List at Khoury College.*
- o **Related Coursework:** Artificial Intelligence, Reinforcement Learning, Neural Networks, Natural Language Processing, Information Retrieval, Object-Oriented Design, Algorithms and Data, Computer Systems, Data Modeling, Foundation of CyberSecurity, Fundamentals of Computer Science I & II, Discrete Structures, and Mathematical Reasoning

## COMPUTER KNOWLEDGE

**Languages:** Python, Java, HTML/CSS, JavaScript, SQL, Assembly, and C

**Tools:** LangChain, LangGraph, BERT, Git, Docker, Postman, Node, Bitbucket, Django, GitLab, and GitHub.

**Certifications:** AI-Powered Search with MongoDB Vector Search, Relational Model (SQL) to MongoDB's Document Model.

**Virtual Learning Series:** Meta Career Day: Virtual Learning Series 2025

## EXPERIENCE

### Wayfair LLC

Boston, MA

#### Software Engineering Co-op / AI/Cloud Focused - (Knowledge and Generative AI Acceleration Team)

January 2025 – June 2025

- Evaluated enterprise AI platforms (Glean, Google Agentspace, Moveworks) using the LLM-as-a-judge method to ensure robust model performance for customer service automation insights for internal AI tools.
- Designed custom prompt templates to assess hallucination and relevance, and implemented categorization for detailed usage analysis and benchmarking against golden datasets.
- Engineered an end-to-end clustering pipeline using 6 embedding models, 5 dimensionality reduction techniques, and 7 clustering algorithms to evaluate the performance of 40+ model combinations in grouping semantically similar text.
- Achieved a high Silhouette Score of 0.76 by vectorizing text with TF-IDF, applying PCA to reduce dimensions to 80, and clustering with KMeans (k=50).
- Used Vertex AI prompt optimizer to improve categorization of service tickets, boosting classification accuracy by 25%.
- Built AI-powered RAG chatbots using LangChain/ADK to deliver intelligent enterprise knowledge.
- Built and orchestrated a data pipeline using Apache Airflow on Google Cloud Composer.
- Provisioned cloud infrastructure using Terraform and deployed containerized AI services on GCP (BigQuery, GKE).

### Validus Capital

Singapore

#### Associate Software Engineer Intern

July 2024 - August 2024

- Designed and tested full-stack modules for error detection digital loan signing workflows using MySQL, and Postman.
- Created functions to check for errors and throw exceptions during the loan signing process by company clients.
- Queried user data via MySQL to authenticate users during the signing process.
- Employed Postman to test and troubleshoot multi-API integrations and configured Maven for efficient dependency management.

## PROJECTS

### Escape the Castle with Reinforcement Learning

Boston, MA

#### Personal Project

October 2024 – November 2024

- Implemented a Python Q-learning agent to play the popular Escape the Castle game under partial observability, achieving a 99.2% win rate.
- Optimized policy reliability so that 99.98% of evaluation decisions were drawn from the learned Q-table.

### Stock Trading Simulation

Boston, MA

#### Coursework Project

April 2024 – May 2024

- Implemented a stock market application using Java, for experimenting with investments in a simulated environment.
- Included features such as X-day moving averages, portfolio rebalancing, performance visualization, and a user-friendly GUI.

## EXTRACURRICULAR INVOLVEMENT

### Teaching Assistant (TA) for CS 3650 Computer Systems:

- o Grade homework assignments and assessments.
- o Help students with homework and concepts during office hours.

### Outreach Director & E-Board Member, Oasis (Software Project Incubator, Northeastern University):

- o Fostered cross-disciplinary software innovation by organizing joint events across student clubs; mentored teams on AI/UX projects.

### Co-Op Captain at Wayfair:

- o Organized events and served as liaison between co-ops and HR to gather and communicate feedback.