

# Job Search Strategy Plan

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## 1. Career Goals (S.M.A.R.T.)

**Goal 1 – Summer 2026 Internship (Primary Goal):** Secure a Summer 2026 Software Engineer or Machine Learning Engineer internship at a tech company in the United States by May 2026, by applying to at least 60 targeted positions and maintaining a minimum 10% interview rate (at least six interviews).

**Goal 2 – Portfolio and Professional Branding:** By March 31, 2026, complete and publicly showcase three production-quality portfolio projects (an LLM/RAG-based application, a data or machine learning pipeline, and a full-stack product) on GitHub and on a polished portfolio website, and add at least two detailed case studies that clearly explain the problem, approach, tools, and impact.

**Goal 3 – Technical and Interview Readiness:** By February 28, 2026, complete at least 150 LeetCode-style problems (covering arrays, dynamic programming, graphs, and SQL) and eight system design or machine learning design mock interviews, tracked in a spreadsheet, in order to achieve consistent confidence and accuracy on medium-level interview problems.

**Goal 4 – Professional Network Development:** By April 30, 2026, conduct 20 informational interviews with professionals (including Northeastern alumni, meetup contacts, prior colleagues, and event speakers) in AI/ML, data, or backend engineering, and maintain an active relationship with at least 10 of these contacts through periodic updates and follow-ups.

## 2. Experience, Skills, and Strengths

- Top 5 Technical Skills:
  - Python for AI/ML and NLP – development of end-to-end machine learning pipelines, models, and evaluation workflows.
  - LLMs, RAG, and NLP Systems – experience with LangChain, embeddings, FAISS, prompt engineering, and explainable ML.
  - Full-Stack Development – experience with Flask, FastAPI, React, Next.js, Streamlit, and Node.js.
  - Data Engineering and Databases – SQL, MySQL, SQLite, and MongoDB, including ETL pipelines and dimensional modeling.
  - Machine Learning and MLOps Foundations – classical ML methods (Logistic Regression, SVM, Random Forest, LightGBM), model tuning, and deployment exposure.

- Top 3 Technical Skills with Examples:
  - **Python for AI/ML and Data Pipelines:** During the AI/ML internship at Zenshastra Software Services, developed end-to-end AI features using Python, Flask/FastAPI, SQLAlchemy, and MongoDB. Delivered production-ready services such as a PDF extractor and summarizer and a 10-Q report extractor that automated manual workflows and supported data-driven analysis.
  - **LLM, RAG, and NLP System Design:** Designed retrieval-augmented generation (RAG) pipelines with chunking, embeddings, and FAISS-based retrieval to improve grounding and response fidelity for LLM-based agents. Evaluated and fine-tuned local LLMs for specific workflows, and experimented with prompt routing and parameter-efficient tuning to improve response quality and latency.
  - **Full-Stack Application Development:** Developed HIVE, a Flask-based collaboration platform with real-time chat, notes, and file sharing using Tailwind CSS, Bootstrap, and Socket.IO. Also developed portfolio projects including PageMaster, a multilingual PDF chatbot built with LangChain, FAISS, Python, Streamlit, and Google Gemini, and Prompt Refinerz, a FastAPI- and JavaScript-based application for refining prompts, both deployed for real users.
- Top 5 Strengths:
  - End-to-end ownership and product-focused mindset.
  - Strong analytical and problem-solving ability.
  - Clear communication of complex technical concepts.
  - Collaboration and teamwork in research and industry environments.
  - Continuous learning and adaptability through courses, projects, and certifications.
- Top 3 Strengths with Examples:
  - **End-to-End Ownership and Product Thinking:** In the Legal Case Prediction and Explanation project, designed an end-to-end system that performed judgment prediction (using XLNet with a BiGRU layer), summarization with InLegalBERT, topic modeling, and chatbot-style legal assistance for naive users and legal professionals. Assumed responsibility from research and model selection through implementation, evaluation, and design of the user-facing interface.
  - **Analytical and Problem-Solving Ability:** Implemented a heart-disease prediction pipeline using Logistic Regression, SVM, Random Forest, and LightGBM with feature engineering and ensemble analysis. Compared models, tuned hyperparameters, and interpreted performance trade-offs to select an effective and interpretable solution that balanced accuracy and generalizability.
  - **Communication and Teaching-Oriented Explanation:** During the research internship at PES University, contributed to legal AI, NLP, and full-stack development projects and regularly explained complex ML and NLP pipelines and experimental results to faculty members and peers with varied levels of technical

expertise. Structured explanations around problem context, model behavior, impact, and limitations to support informed decision making.

### 3. Target Companies List

The following companies are current primary targets based on alignment with interests in artificial intelligence, machine learning, data platforms, and large-scale software systems:

1. Google / Google DeepMind – Opportunities to work on large-scale ML systems, applied research in LLMs, and infrastructure for generative AI.
2. Microsoft – Roles in Azure AI, Copilot, and related teams focused on AI-enabled developer tools and productivity products.
3. Amazon – AWS AI/ML and Bedrock teams that build cloud-native AI services, RAG solutions, and scalable ML platforms.
4. Meta – AI and infrastructure teams that focus on recommendation systems, generative models, and large-scale experimentation.
5. NVIDIA – AI infrastructure and GPU-accelerated ML tools that underpin much of the modern ML ecosystem.
6. Databricks – Unified data and AI platform with a strong emphasis on RAG, LLMOps, and advanced data engineering.
7. Snowflake – Data cloud and modern warehousing platform with growing AI and ML capabilities.
8. Boston-area technology companies – for example, HubSpot and AI-focused startups in the Boston ecosystem, offering opportunities to work in fast-moving teams close to Northeastern University.

### 4. Job Search To-Do List with Deadlines

#	Action Item	Target Completion Date
1	Finalize the resume, LinkedIn profile, and GitHub profile with a focus on AI/ML and full-stack projects.	December 31, 2025
2	Shortlist at least 30 target companies and identify three to four preferred roles per company (software engineering, machine learning engineering, or data engineering).	January 15, 2026
3	Complete 80 LeetCode problems (arrays, strings, dynamic programming, and	January 31, 2026

graphs) and prepare three to four strong ML/LLM project stories for interviews.

4	Conduct 10 informational interviews with Northeastern alumni or meetup contacts working in AI/ML or backend roles.	February 29, 2026
5	Submit at least 60 high-quality internship applications with tailored resumes and brief outreach messages to recruiters or alumni whenever possible.	May 1, 2026

## 5. Professional Brand – Elevator Pitch

Hi, my name is Kothuri Venkata Srujan, and I am a Master of Science in Computer Science student at Northeastern University with a focus on artificial intelligence, machine learning, and full-stack development. My background combines strong foundations in algorithms, databases, and software design with hands-on experience building AI-powered chatbots, document-intelligence tools, and predictive models.

Recently, as an AI/ML Intern at Zenshastra Software Services, I developed end-to-end AI features using Python, Flask and FastAPI, SQLAlchemy, and MongoDB. These included a PDF extractor and summarizer, a 10-Q report extractor, and multiple AI agents that automated manual workflows. Previously, as a Research Intern at PES University, I contributed to legal AI projects involving judgment prediction and explanation systems, as well as summarization and topic modeling for court cases.

I am motivated by opportunities to take ideas from research and experimentation into practical, user-facing systems, whether that involves designing RAG pipelines with FAISS and large language models or shipping full-stack applications with React, FastAPI, and cloud services. I am currently seeking internship roles as a Software Engineer or Machine Learning Engineer where I can contribute to intelligent systems, scalable data and ML pipelines, and AI-driven products that deliver clear value to users.

## 6. Networking Opportunities

Networking activities will focus on learning from others, asking for advice, and building relationships that provide insight into roles, teams, and hiring processes.

- Planned Networking Activities and Events:

- **Northeastern and Khoury Networking and Recruiting Events (On Campus):** Career fairs, employer information sessions, technical talks, hosted speakers, and employer panels related to software engineering, AI/ML, and data. The objective is to attend at least two to three events per semester and speak with three to five individuals at each event, including recruiters, engineers, and alumni.
- **Eventbrite Career Fairs in Boston (Off Campus, In Person):** The following specific events are planned in order to meet recruiters and hiring managers face-to-face:
  - Boston Tech Career Fair – Exclusive Tech Hiring Event:  
<https://www.eventbrite.com/e/boston-tech-career-fair-exclusive-tech-hiring-event-tickets-146581704825?aff=ebdssbdestsearch>
  - Boston Job Fair – February 25, 2026 – Boston Career Fairs:  
<https://www.eventbrite.com/e/boston-job-fair-february-25-2026-boston-career-fairs-tickets-1854029755909?aff=ebdssbdestsearch>
  - Boston Career Fair (Event 1): <https://www.eventbrite.com/e/boston-career-fair-tickets-775189662147?aff=ebdssbdestsearch>
  - Boston Career Fair (Event 2): <https://www.eventbrite.com/e/boston-career-fair-tickets-775219842417?aff=ebdssbdestsearch>
  - For these events, the plan is to bring a tailored resume, deliver a concise 30–45 second professional introduction, engage in meaningful conversations with at least five to seven employers at each fair, and send follow-up messages or LinkedIn connection requests within 24–48 hours.
- **Boston AI and Machine Learning Meetups (Off Campus):** Participation in meetups focused on artificial intelligence, machine learning, data engineering, and Python in the Boston area. The objective is to attend one meetup per month and follow up with at least two new contacts after each event.
- **Virtual Communities and Webinars (Hybrid or Online):** Attendance at online events hosted by AI/ML communities, MLOps groups, and technology companies. The objective is to attend one to two virtual events per month, ask at least one thoughtful question in each session when appropriate, and connect with speakers or panelists on LinkedIn.

For each interaction, a simple networking tracker (spreadsheet or note-taking system) will be used to record the contact name, organization, date, discussion highlights, and planned follow-up actions.