

Victor Verma

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EDUCATION

Boston University

Boston, Massachusetts

B.A. in Mathematics and Computer Science, Minor in Data Science

May 2025

- **Honors:** 3.87 GPA, 6x Dean's List, UROP Student Research Award.
- **Relevant Courses:** Algorithms, Computer Systems, Functional Programming, Machine Learning and AI, Software Engineering, Differential Equations, Linear Algebra, Multivariate Calculus, Probability, and Stochastic Processes.

WORK EXPERIENCE

Savvas Learning Company

Boston, Massachusetts

Software Development Engineer Intern

Jun 2024 – Aug 2024

- Developed a chatbot assistant for 400+ employees to efficiently query internal documentation and the codebase using a custom Amazon Bedrock Retrieval-Augmented Generation (RAG) pipeline and the LlamaIndex API.
- Leveraged the Confluence and GitHub APIs to automate the upload of 500+ Confluence documents and GitHub README files into S3 buckets, creating comprehensive knowledge bases for the RAG pipeline.
- Built a FastAPI backend with Google OAuth to restrict access to Savvas employees, integrating a Gradio frontend with the chatbot service deployed using AWS Lambda.

Questrom School of Business, Boston University

Boston, Massachusetts

Undergraduate Research Assistant

Jan 2023 – May 2024

- Created a novel dataset documenting the education and work history of 150,000 U.S. State Legislator Candidates from 1967 to 2017, discovering only 40% of candidates have biodata available online.
- Engineered Python software leveraging the Google Search API, the OpenAI API, pandas, and BeautifulSoup to collect and filter biodata from 600,000 web pages and PDFs.
- Developed neural network, random forest, XGBoost, and k-nearest neighbors models achieving a 72% accuracy rate and 0.80 f1 score in classifying biodata outputs as true or false.
- Increased data collection efficiency by 16x by implementing multithreading, rate limiting, and error handling.

Kappa Theta Pi Professional Technology Fraternity - Lambda Chapter

Boston, Massachusetts

App Committee Head

Sep 2023 – Present

- Led a 5-member team in designing and developing a centralized website containing academic and professional resources for 80+ fraternity members, including course details, professor reviews, and important information.
- Built a full-stack web-app using React, Node.js, Supabase, and MongoDB, and implemented Google OAuth using Firebase to restrict access to fraternity members.

PROJECTS

Letterboxd Movie Recommendations

- Engineered a content-based filtering system leveraging random forests and 40,000+ data points to generate personalized movie recommendations for 600+ users in 40+ countries and deployed a full-stack web-app using React, TypeScript, Tailwind CSS, Flask, and Supabase.
- Displayed 10+ unique user profile statistics, updated in real-time based on activity from other users across the platform, and a downloadable data visualization of individual movie rating habits.
- Created 2 GitHub Actions to automate the weekly scraping of publicly accessible Letterboxd data and to update the statistics of 300+ users monthly.

StatSense AI

- Built LSTM and Simple RNN models with TensorFlow to forecast NFL statistics for QBs, RBs, WRs, and TEs using weekly statistics in time series, achieving a 75% success rate against player props set by sportsbooks.

SKILLS

Languages and Frameworks: Python, JavaScript/TypeScript, HTML/CSS, React, Node.js, Flask, Supabase, MongoDB.

Tools and Libraries: AWS, Pandas, Scikit-Learn, NumPy, TensorFlow, Matplotlib, BeautifulSoup, Tailwind CSS, Git.