BLESSING NDEH

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EDUCATION

Dartmouth College, Hanover, NH   *Expected graduation June 2027*

Bachelor of Arts, Major in Computer Science: Minor in Human-Centered Design

- **Relevant Coursework**: Software Design, Object-Oriented programming, Database Systems, Data Structures and Algorithms, Machine Learning, Discrete Maths, Design Thinking, Artificial Intelligence, Full-Stack development*
- **Awards**: King Scholar (full-ride scholarship), TuckLab Entrepreneurship Certificate, Undergraduate Research Assistants Award
- **Activities:** Women in Computer Science, Design Initiative at Dartmouth College, Undergraduate Research at Dartmouth College

PROFESSIONAL EXPERIENCE

MINDS, MACHINES AND SOCIETY GROUP, Hanover, NH   *Jun 2025 – Aug 2025*

Undergraduate Machine Learning Research Assistant

- Conducted an independent research with faculty to detect fake news sentiment in news outlets by scraping data from authorized and unauthorized news outlets
- Conducted comparative analysis on 10+ distributed news datasets, identifying key performance bottlenecks and informing system optimization priorities

COMPUTER SCIENCE DEPARTMENT, Dartmouth College   *Mar 2025 - Jun 2025*

Teaching Assistant

- Led weekly interactive discussions on Linear Algebra and computational problem-solving for 30+ students, resulting in 20% improvement in problem-solving skills as measured by course assessments
- Partnered with course faculty to provide targeted feedback on assignments, reinforcing key concepts and supporting individual student growth

THAYER SCHOOL OF ENGINEERING, Dartmouth College   *Sep 2024 - Mar 2025*

User Experience Designer

- Interviewed 20+ professors and Students to analyze student pain points on Dartmouth's Canvas LMS in order to enhance accessibility
- Conducted competitive analysis to identify best practices for student-faculty collaboration and inform project incentives
- Prototyped a student-led pilot program training 30+ students on Canvas best practices, enabling them to assist professors in improving course pages usability for 5000+ students

LEADERSHIP ACTIVITIES

THAYER SCHOOL OF ENGINEERING, Dartmouth College   *Sep 2025 - Present*

Project-Manager

- Directed a cross-functional design team of 6 researchers, supporting 3 distinct Campus & Community Life subcommittees to ensure project cohesion and timely delivery across diverging Human-Centered Design research scopes.
- Coordinated all project documentation to guarantee equitable task delegation and ensure all information/decisions were locatable

COLORSTACK AT DARTMOUTH, Dartmouth College   *Sep 2025 - Present*

Secretary

- Co-founded the Dartmouth College chapter of ColorStack with 5 peers; recruited 30 new members and provide training/opportunities for professional development
- Organizing and maintaining accurate confidential records, databases, meeting logistics, preparing and distributing agendas

PROJECTS

PATTERN MATCHING | *Java*

- Engineered a Viterbi-based Hidden Markov Model in Java to accurately predict the Part-of-Speech tags for input sentences after training on large text corpora
- Developed probabilistic maps for transitions and observations using log probabilities to efficiently handle maximum likelihood calculations and mitigate underflow risk during sequence scoring
- Implemented a full training and testing pipeline, including data parsing, log-probability calculation, Viterbi traceback, and an accuracy metric to validate model performance across both simple and complex Brown corpus dataset

TINY SEARCH ENGINE | *C, Git, Bash, Linux/Unix*

- Engineered a complete tiny search engine in C, designing its crawler, indexer, and querier components, utilizing a hashtable inverted index to efficiently organize web data and retrieve search results based on term frequency.
- Optimized performance and debugging with valgrind for memory leak detection and GDB for troubleshooting, ensuring efficient memory usage and robust error handling

NUGGETS (Multiplayer Exploration Game) | *C, Git, Bash, Linux/Unix*

- Collaborated in a team of 3 to develop a C-based game server for 26 players, managing real-time game and message parsing on a grid-based map
- Built a dynamic environment with an ASCII-rendered map, managing player visibility, token collection, and movement mechanics

SKILLS/ INTERESTS

Languages: C, Java, Python, Bash, JavaScript, Node, React, CSS/HTML, MongoDB
Frameworks/Tools: REST APIs, Linux/Unix, Git, TCP/IP, Socket Programming, Flask, Postman
Other: Dance team, Competitive Powerlifting, Swimming, Lector