

# Joshua Lee

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## EDUCATION

**Northwestern University** Evanston, IL  
McCormick School of Engineering: *B.S* in **Computer Science**, *B.A* in **Mathematics** September 2024 - Present

GPA: 3.917/4.00 | Dean's List all semesters | Pursuing: Combined BS/MS in Artificial Intelligence

Courses: ML | Deep Learning for NLP | Systems (Assembly/C/C++) | Algorithms | Discrete Math | Abstract Algebra

**Harvard Extension School** Cambridge, MA  
Courses: Multivariable Calculus | Linear Algebra | Intro to AI with Python | Complex Analysis August 2022 - May 2024

**Belmont High School** Belmont, MA  
*High Honor Roll* | Rank: top 10% (highest cohort) September 2024 - Present

GPA: 4.14/4.00 | SAT: 1580/1600 | PSAT: 1510/1520 (National Merit Scholarship Finalist); 11 AP tests with a 5/5 score

## RELEVANT WORK EXPERIENCE

**PathCision Medicine, Inc.** Cambridge, MA  
*Intern* June 2025 – September 2025

- Developed software to quantify lymphocyte clusters in whole slide images using Vision Transformers, speeding up analysis by ~1.5x.
- Occasionally assisted with IT administration, including domain, email, and account management

**IPR Advisors** Taipei, Taiwan  
*Intern* July 2024 – September 2024

- Originated software to automate the collection of mutual, index, and equity fund holdings data using web-scraping
- Enabled a ~10x increase in data-aggregation speed for other interns by streamlining retrieval & processing

**MIT Sloan School of Management** Cambridge, MA  
*Intern* February 2023 – September 2023

- Created dataset of financial info using optical character recognition (OCR) for Profs. David Thesmar & Emil Verner
- Originated error prediction & info processing tools, resulting in ~5x data handling speed for other interns

**Polar.cx** (Formerly circle.sh) Belmont, MA  
*Co-Founder* August 2020 – July 2022

- Created AI chatbot to analyze forum websites and find solutions to Apple-related tech problems
- Launched on Product Hunt in June 2021

## ACTIVITIES

**Institute of Electrical and Electronics Engineers (IEEE)** Evanston, IL  
*Independent Developer* January 2025– Present

- Developed ChatBot for IEEE at NU to provide students with real-time answers to class-related questions
- Streamlined class information retrieval from Northwestern websites using web scraping automation.
- Designed custom Retrieval-Augmented Generation (RAG) pipeline to translate natural language into SQL queries

**NU Institute For Student Business Education** Evanston, IL  
*Consultant & Developer through Arch* October 2024– Present

- Developed ML-powered athlete form analysis software for Sports SensAI, an ISBE Arch startup

**Record Robotics (First FRC Team 6731)** Belmont, MA  
*Programming Lead* September 2020 – August 2024

- Managed a team of 4 programmers. Developed an autonomous navigation system that helped Team 6731 compete at the NE district championship for the first time in the team's history.

**Belmont Free Lessons** Belmont, MA  
*Instructor for Machine Learning* May 2022 – August 2022

- Co-taught a class on machine learning to middle school students, contributing to a local COVID-19 initiative to provide free and accessible online education for children during the pandemic
- Content included: linear regression, natural language processing, neural network, & cluster analysis

## SKILLS

**Programming languages:** Python (7+ years), Java, C/C++, Assembly (x86-64), HTML/CSS/JS, MATLAB, SQL, LaTeX

**AI/ML Frameworks & Libraries:** PyTorch, TensorFlow, NumPy, Pandas, HuggingFace, OpenCV, LangChain, FAISS

**Fullstack Development:** React, Tailwind, Vercel, Selenium, Supabase, MySQL, Git, CI/CD, Cloud Hosting (AWS/GCP)

**Concepts:** ML, Model Integration, Agentic Systems, CoT, RAG, Web-Scraping, Computer Vision, Autonomous Control

**Other:** Music Production (3.5 years); Cello (14 years); Bassoon (7 years); Video editing in DaVinci Resolve (4 years)