Josh Elieson

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Education

Columbia University — New York, NY
MS in Computer Science — *Dec 2027*

University of Utah — Salt Lake City, UT
BS in Computer Engineering, GPA: 3.8/4.0 — *May 2026*

Experience

Teaching Assistant — Sep 2026 – Present
Columbia University — *New York, NY*

- Communicate and collaborate with the professor and faculty on calculus-based teaching strategy
- Support undergraduate calculus instruction through office hours, grading, and student assistance

Software Engineer Intern — Aug 2024 – Aug 2025
Northrop Grumman – Cloud Services and Integration — *Roy, UT*

- Built 10 automated data validation scripts in Jython and Groovy to verify UML model uploads, reducing manual data review by approximately 60%
- Automated model verification across 200+ engineering projects, reducing deployment time from 1–2 days to under 30 minutes
- Authored 20+ technical guides for Apache Spark, Kafka, Hadoop, and other software developer tools, standardizing practices across tens of software engineering teams

Software Engineer Intern — May 2024 – Aug 2024
Northrop Grumman – Physical Security — *Roy, UT*

- Improved LiDAR sensor processing speed by 3x through algorithms that convert millions of incoming live packets into structured point-cloud data
- Reduced LiDAR scan visualization time from 10+ minutes to seconds by building a React-based 3D viewer to render point-cloud data
- Enabled real-time monitoring across 10+ LiDAR scanners by deploying the completed sensor system for use by the security team

Learning Assistant — Aug 2023 – May 2024
University of Utah — *Salt Lake City, UT*

- Supported physics instruction for 100+ students by leading twice-weekly discussion sessions focused on calculus-based mechanics
- Mentored 50+ students one-on-one through homework and exam preparation in weekly office hours

Projects

Nuclexa.io | *Next.js, TypeScript, SQL* — Summer 2026

- Built an AI skills registry with 22,000+ packages, enabling developers to discover, publish, and manage reusable add-ons across Claude, Codex, Antigravity, and other AI platforms
- Enabled one-click installation of packages through a unified installation system that automatically handles platform configuration and setup

Mechanical Detection of Magnetic Resonance | *Python, MATLAB, Data Analysis* — Aug 2025 – May 2026

- Analyzed voltage, frequency, and waveform datasets in Python and MATLAB across multiple sensor prototypes, driving improvements that increased detection sensitivity by 13.44x
- Designed experiments and assisted in quantitative analysis of sensor performance, achieving a 15 mT detection limit at 13 mm

Technical Skills

Languages: Python, Java, JavaScript, TypeScript, C#, SQL, MATLAB, Groovy
Frameworks: React, Next.js, Node.js, .NET, Tailwind CSS
Developer Tools: Git, Linux, Docker, AWS, PostgreSQL