Joshua Hegstad

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EDUCATION

Columbia University, School of Engineering — New York, NY

Bachelor of Science – Computer Science, Minor – Applied Math. — *Sep 2023 – Dec 2026*

C.P. Davis Scholar (Top Admitted Engineers), National Merit Scholar

Coursework: Adv Programming (C), Databases, Data Structures, CST, Fund. of Comp. Sys., AI, NLP, UI, 3DUI, VR/AR

Next Semester: OS (C), Advanced Systems Design (C), C++, Machine Learning

EXPERIENCE

Columbia University — New York, NY

Research Assistant | React, TypeScript, Next.js — *Jun 2025 – Present*

- ALND.AI: The sole engineer developing AI studying and teaching tools using TypeScript, React, Next.js, and Vercel AI SDK.

Pure Poker — New York, NY

Early Software Engineer | React, TypeScript, Next.js, AWS — *May 2025 – Aug 2025*

- Worked side-by-side with CEO & CTO, developing from idea to production: deposit/withdrawal flow and fees system (earning first revenue), private games (replicating competitor PokerNow), and AI Avatar generation (establishing monetization funnel).
- Connected frontend to serverless backend infrastructure, including AWS Lambda Functions, Cloudwatch, and DynamoDB.

AMLAH - Early Stage Startup — New York, NY

Software Engineer Intern | React, JavaScript, MongoDB, AWS — *Jan 2025 – May 2025*

- Designed the platform with React, JavaScript, and MongoDB, shipping the website & user waitlist ahead of schedule.
- Managed the application on AWS (EC2, S3, Cognito, CloudWatch); fixed 10+ critical bugs and security vulnerabilities.

Standard Partners Fund LP — New York, NY

Software Engineer Contractor | Python, Flask — *Dec 2024 – Feb 2025*

- Created Investor Goggles, a web and AR platform providing market insights using LLMs and financial APIs.
- Deployed and tested platform in the field with hedge fund investors, gathering feedback to refine product features.

Hess Corporation — Minot, ND

Cybersecurity and Field Automation Intern | Microsoft Office, Python, JavaScript — *May 2024 – Aug 2024*

- Developed secure LLM tools to automate cybersecurity analysis workflows within stringent data security constraints.
- Identified and documented 100+ vulnerabilities by analyzing cybersecurity policies, network traffic, and device data.

LEADERSHIP

Columbia Space Initiative - NASA SUITS Challenge — New York, NY

Co-Leader, Developer | Unity, C#, TS, HoloLens 2, Snap Spectacles — *Jan 2024 – May 2025*

- Scaled software team 2x (to 20 engineers) and directed the development of our augmented reality astronaut guidance system.
- Implemented Agile development workflows; secured funding by co-authoring successful NASA & NY Space Grant proposals.
- Successfully tested our AR system at Johnson Space Center; collaborated with NASA engineers and Wichita State University.

Homebrew Computer Club (HCC.NYC) — New York, NY

Founder | Vite + React, Supabase — *Feb 2025 – Present*

- Founded Columbia's tech project club, securing funding & growing membership to 20+ students.
- Built website under time pressure to launch on the 50th Anniversary of the Silicon Valley Homebrew Computer Club.

PROJECTS

Don't Fret! | *SQL, Flask, Python; TypeScript, Lens Studio, Snap Spectacles*

- Guitar learning web app with song database chord diagrams; evolved into an AR app with floating chords & live feedback.

Photography Website | *Next.js, React, TypeScript*

- Built a minimalist photography portfolio with custom Content Management System enabling drag-and-drop photo uploads, dynamic collection creation, visibility controls, and favorite collections that automatically generate navigation tabs.

SKILLS

Languages: Python, R, SQL, Java, C#, C, TypeScript, JavaScript, HTML/CSS

Frameworks/Libraries: React, Next.js, Node.js, Express, Flask, MongoDB, Supabase, Pandas, NumPy

Developer Tools: Git, Docker, AWS (Lambda, DynamoDB, S3, EC2, CloudWatch), Vercel, Unity, Lens Studio, Unix

Methodologies: Agile/Scrum, CI/CD, REST APIs, UI/UX Design (Figma)