

Luke Hopkins

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EDUCATION

New York University

B.S. Computer Science, Minor in Cybersecurity

New York, NY

Expected May 2027

Relevant Coursework: Data Structures & Algorithms, Analysis of Algorithms, Operating Systems, Databases, Computer Architecture, Machine Learning for Business, Object-Oriented Programming, Discrete Math, Computer Security

EXPERIENCE

NBCUniversal (Peacock)

New York, NY

Software Engineering Intern, Video Player Technology Team

June 2026 – August 2026

Stack: TypeScript, React, Jest, Chromecast, Cursor

- Reduced Chromecast video start failures (VSF) from 8.3% to 6.5%, a 22% relative drop, by diagnosing and fixing playback defects in the shared TypeScript Video Player SDK behind Peacock, SkyShowtime, and NOW TV.
- Refactored the SDK's internal test suite into a device-targeted harness, enabling engineers and QA to reproduce and debug Chromecast playback issues without manual device setup.
- Built a Cursor-based AI workflow that regenerates SDK documentation on every feature-branch release, eliminating doc drift across three consumer streaming platforms.

Vista Kids Dental

Vista, CA

Software Engineering Intern

September 2025 – December 2025

Stack: Next.js, TypeScript, Tailwind, Vercel, Resend API

- Designed and shipped the practice's site from scratch, growing total site traffic 400% over the previous site.
- Built appointment booking on a validated server route and the Resend API, configuring SPF/DKIM for deliverability with error logging and rate limiting.
- Sustained a 0% production error rate since launch across a two-week release cycle, deploying on Vercel CI/CD with preview builds, custom domain, and HTTPS.

PROJECTS

Subscriber Churn Causal Study | Python, pandas, NumPy, scikit-learn, LightGBM

May 2026

- Built an end-to-end causal inference pipeline over a 3.5 GB subscription dataset, merging 6 raw CSVs into a 1M-row user panel via chunked streaming aggregation and dtype downcasting to stay within memory limits.
- Corrected a +29.85 pp selection-bias artifact using propensity-score modeling (AUC 0.856) and inverse-propensity weighting, exposing opposite-sign effects by segment worth a \$3.34M swing per 1M subscribers.

Multi-Object Tracker | Flask, OpenCV, JavaScript

April 2025

- Built a real-time computer vision app tracking multiple objects across webcam and uploaded video, validated at 96% accuracy with 50 users on NYU film productions.
- Implemented interactive ROI selection, template-matching re-detection, and streaming video output with custom file export.

LEADERSHIP & ACTIVITIES

Luxury and Retail Association | Marketing Director

August 2024 – Present

- Grew event turnout 300% by planning and scheduling the club's programming calendar.
- Increased engagement 500% across all platforms with a segmented content calendar built alongside the organization's president.

SKILLS

Languages: Python, Java, JavaScript, TypeScript, C++, SQL, HTML/CSS, Bash

Frameworks & Tools: React, Next.js, Node.js, Express, Flask, Jest, pandas, NumPy, scikit-learn, OpenCV, Git, PostgreSQL, Vercel, Cursor

Media & Streaming: Video Player SDK development, Chromecast, Adaptive Streaming Playback, Automated Device Testing

Spoken: Fluent English; Conversational Spanish

Interests: Rock Climbing, Weightlifting, Running, Soccer, Anime, Fashion, Pokemon