

Yanbao Li

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Education

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>Stony Brook University</b><br>B.S. studies in Information Systems                                                                                                                  | <b>Stony Brook, New York</b><br>Jul 2026 - Present |
| <b>Anhui University</b><br>B.S. studies in Digital Media Technology (Transferred)<br>Relevant Experience: Co-Lead, Mathematical Modeling Club; Teaching Assistant, Probability Theory | <b>Hefei, China</b><br>Aug 2024 - Jun 2026         |

Technical Skills

Languages: Python, Java, C#, TypeScript, Dart, SQL, MATLAB  
Tools: Spring Boot, Fastify, Flutter, PyTorch, Git, MySQL, SQLite, Supabase, FFmpeg, yt-dlp  
ML & Modeling: Data organization and cleaning, feature processing, model fitting, parameter tuning, experiment design, result analysis

Projects & Leadership Experience

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| <b>VideoHarvester, Personal Project</b><br>• Built a C# / Windows Forms workflow with yt-dlp and FFmpeg for authorized video-page links and playlist jobs.<br>• Wrapped yt-dlp and FFmpeg in asynchronous process execution and output parsing, with preflight checks for title, quality, size, disk space, and save location.<br>• Built batch-queue progress tracking, platform-ID deduplication, persistent history, unfinished-task recovery, and copyable diagnostic logs.                                                                                                                                                 | <b>2026</b>                |
| <b>AdMind, Personal Project</b><br>• Built a TypeScript / Fastify long-video ad-decision prototype; normalized TwelveLabs time-coded analysis into cacheable, traceable risk evidence validated with Zod contracts.<br>• Designed a deterministic decision engine that combines video semantics, ethical boundaries, contract constraints, and user-experience rules into executable, auditable plans.<br>• Implemented a pause-state machine and browser-side MediaPipe four-corner occlusion scoring to choose safer placement or defer delivery when no safe area exists.                                                    | <b>2026</b>                |
| <b>Sona, Personal Project</b><br>• Developed an offline-first Flutter / Dart music and MV player for Windows and Android; a single playback coordinator owns the authoritative track, queue, mode, and progress state.<br>• Designed a local import pipeline that identifies media type, reads tags/duration/artwork, cleans filenames, and writes structured records to a SQLite catalog.<br>• Implemented content-hash-based sync for tracks, playlists, favorites, and listening events, with diff preview, cross-device state merging, request generations, cancellation, and fallback safeguards.                          | <b>2026</b>                |
| <b>Multimodal Medical Image Fusion Research, Research Project</b><br>• Organized, cleaned, normalized, and integrated multimodal medical-image data to support model training, evaluation, and repeatable experiments.<br>• Supported data fitting, parameter tuning, and experiment runs on existing PyTorch models while consolidating outcomes across configurations for comparison.                                                                                                                                                                                                                                         | <b>Nov 2024 - Aug 2025</b> |
| <b>CUMCM Drone Deployment Optimization, Competition Project</b><br>• Led the team's programming and modeling work; built a unified 3D kinematic model for drones, smoke rounds, smoke clouds, and missiles with line-of-sight-to-sphere occlusion checks.<br>• Parameterized heading, speed, release time, and fuse delay; used time-discretized simulation to calculate effective coverage and generate scenario visualizations and animations.<br>• Combined simulated annealing, Bayesian hyperparameter tuning, genetic algorithms, island-style parallel search, and NSGA-II for coverage, resource, and energy tradeoffs. | <b>2025</b>                |
| <b>MCM/ICM Cybersecurity Modeling, Competition Project</b><br>• Led the team's primary programming and modeling work, integrating Global Cybersecurity Index, cybercrime, GDP, population, education, and internet-usage data.<br>• Reconciled inconsistent time granularity and country names, then cleaned, merged, and filtered valid records to form a unified dataset for fitting and comparison.<br>• Built Python/Folium/Choropleth cybersecurity maps and crime trends; supported clustering and Random Forest model fitting.                                                                                           | <b>Feb 2025</b>            |

Awards

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|-----------------------------------------------------------------------------|-------------|
| <b>Stony Brook University Tuition Scholarship (2026-2027 Academic Year)</b> | <b>2026</b> |
| <b>CUMCM Mathematical Modeling Competition - Third Prize</b>                | <b>2025</b> |
| <b>ICM Mathematical Contest in Modeling - Successful Participant</b>        | <b>2025</b> |
| <b>Innovation &amp; Entrepreneurship Competition - Excellence Award</b>     | <b>2025</b> |