

Hanyu (Mason) Liu

202-894-3048 | hliu154@jh.edu | [linkedin.com/in/hliu83](https://www.linkedin.com/in/hliu83) | github.com/hanyumasonliu

EDUCATION

Johns Hopkins University <i>Doctor of Philosophy in Geography and Environmental Health and Engineering</i>	Baltimore, MD Aug 2022 – Present
Johns Hopkins University <i>Master of Health Science in Environmental Health and Engineering; Cumulative GPA: 4.0/4.0</i>	Baltimore, MD Aug 2022 – May 2023
George Washington University <i>Bachelor of Science in Business Analytics, Minor in Communications; Major GPA: 3.84/4.0</i>	Washington, D.C. Aug 2018 – May 2022

EXPERIENCE

Ph.D. Researcher <i>Johns Hopkins University</i>	May 2022 – Present Baltimore, MD
<ul style="list-style-type: none">Improved model-data agreement by a 50-point increase in R^2 using a geostatistical inverse model on HPC systemsIdentified a 1-month seasonal timing bias in methane emissions via time-series analysis using Pandas and NumPyReduced matrix computation time by 60% through vectorized and sparse linear algebra operations in MATLAB	
ATP Tour Coach & NCAA Division I & III Athlete <i>ATP Tour / George Washington University / Johns Hopkins University</i>	Aug 2018 – Present Global / Washington, DC / Baltimore, MD
<ul style="list-style-type: none">Coached ATP pros to the Quarterfinals of the Shanghai Masters and strategized a win over an Olympic ChampionAchieved Top 25 national ranking and 4.0/4.0 GPA while balancing 20+ hours/week of athletics and researchSelected as the sole Academic All-American while directing team operations and travel logistics for the roster	
Business Analytics Consultant <i>FI Consulting (Practicum)</i>	Jan 2022 – May 2022 Washington, DC
<ul style="list-style-type: none">Quantified a 20% increase in closure likelihood associated with enrollment decline via logistic regression modelingImproved risk prediction accuracy by 15% over baseline models by applying a Support Vector Machine classifierPresented strategic risk insights to senior stakeholders via decision-focused visualizations and earned 90% approval	
Strategy & Public Affairs Intern <i>Philip Morris International</i>	Sep 2020 – Jan 2021 Beijing, China
<ul style="list-style-type: none">Accelerated IQOS market entry planning by distilling 1,000+ pages of dossiers into a rapid-decision risk frameworkMitigated regulatory headwinds in China by coordinating public relations strategies with government stakeholdersMobilized 100+ employees for a nationwide ESG campaign and contributed to PMI's 50% plastic reduction goal	

PROJECTS

TennisMigos <i>Founder & Lead Developer</i>	2026 – Present
<ul style="list-style-type: none">Built and deployed a native iOS app in Swift integrating Supabase (PostgreSQL + Auth) for backend servicesImplemented asynchronous Gemini API calls to support real-time user interactions, bookings, and profile matchingDelivered a production-ready mobile app and managed the full product lifecycle from design to App Store launch	
Educational Media Brand <i>Founder & Content Strategist</i>	2021 – Present
<ul style="list-style-type: none">Generated 300,000+ views by producing weekly-to-monthly videos on tennis techniques and NCAA recruitmentOrganized private advisory communities to guide parents through NCAA regulations and achieved 7,080 followersAnalyzed audience retention metrics to optimize content strategy and boosted engagement (likes & saves) by 60%	

TECHNICAL SKILLS

Languages: Python, R, MATLAB, Java, C/C++, SQL (PostgreSQL), JavaScript, HTML/CSS, Swift, Bash/Shell
Machine Learning & AI: GenAI (LLMs), NLP, SVM, PCA, CNN, RNN, Regression, Random Forest, Clustering
Developer Tools & Platforms: Git/GitHub, LaTeX, Supabase, AWS (Basic), Linux/Unix, VS Code, Xcode
Libraries & Frameworks: NumPy, Pandas, SciPy, Matplotlib, Seaborn, Plotly, TensorFlow, PyTorch, scikit-learn

ADDITIONAL INFORMATION

Languages: Chinese (Native), English (Fluent), Spanish (Elementary), French (Elementary)
Interests: Texas Hold'em Poker (Game Theory), Stock Market Analysis, Strategic Board Games, Piano, K-pop dances
Work Authorization: U.S. Permanent Resident (Green Card Holder) - No sponsorship required