JINGYI LI

Software Engineer | 3D Graphics • Computer Vision • AI/ML
Georgia Tech OMSCS (AI) • Penn CS • 2+ yrs C++ • H1B Transfer Available
(610) 938-7161 | jyljingyili@gmail.com | [LinkedIn](#)

TECHNICAL SKILLS

Languages & Graphics: C++, Python, OpenGL, Qt, CUDA, JavaScript **| AI/ML:** TensorFlow, PyTorch, NumPy, Computer Vision, NeRF **| 3D & Spatial:** 3D Reconstruction, Computational Geometry, Rendering Pipelines, GIS **| Cloud/DevOps:** Git, Docker, Jenkins, CI/CD, GCP

PROFESSIONAL EXPERIENCE

Esri Inc. (ArcGIS Native Maps SDKs)   Redlands, CA
Software Development Engineer   *Apr 2025 - Present*
Product Engineer   *Oct 2023 - Apr 2025*
- Architected 3D geospatial rendering engine, optimizing multi-threaded C++ pipeline and improving frame rates by 40% for large-scale datasets
- Led migration of 150K+ lines to modern MVC architecture, reducing coupling by 60%; designed C++ APIs used by 10K+ developers
- Developed 3D Tiles Layer supporting OGC standards with LOD management for millions of 3D objects
- Built comprehensive test suite (95%+ coverage) and automated CI/CD pipeline, reducing build time by 50%

University of Pennsylvania, Dept. of Computer & Information Science   Philadelphia, PA
Research Assistant (Lab: NetDB@Penn)   *May 2023 - Feb 2024*
Teaching Assistant (CIS 5050: Software Systems)   *Jan 2023 - May 2023*
- Designed automated testing framework for blockchain smart contract optimization research project
- Evaluated database query optimization techniques applied to smart contract execution, improving performance by 30%
- Mentored 40+ students in systems programming, debugging, and software engineering best practices

University of Pennsylvania, Multiple Departments   Philadelphia, PA
Research Assistant - CV/ML, NLP, GIS   *May 2022 - Nov 2023*
- Developed CV/ML research proposal for archaeological site reconstruction using magnetometry GIS data analysis
- Built NLP pipeline analyzing 100K+ property records over 10 years using Python, NLTK, and vector space models
- Processed LiDAR point clouds and developed interactive web-based GIS visualization platforms
- Applied 3D reconstruction and photogrammetry techniques for heritage site documentation

Astoria AI Inc.   New York, NY (Remote)
Software Development Intern   *Jun 2022 - Aug 2022*

- Prototyped NLP-powered chatbot using transformer models; automated data workflows with Python

EDUCATION

Georgia Institute of Technology   Atlanta, GA (Online)
Master of Science in Computer Science   *Expected Dec 2028*
Specialization: Artificial Intelligence   *(In Progress - Started Jan 2026)*

University of Pennsylvania   Philadelphia, PA
Master of Science in Historic Preservation   *Aug 2023*
Focus: Computer Science, 3D Reconstruction, Deep Learning (NeRF), Computer Vision
Relevant Coursework (CS GPA: 3.95/4.0):
Interactive Computer Graphics (A+) • Machine Perception (A) • Software Systems (A) • Operating Systems Design & Implementation (A) • Programming Languages & Techniques (A+)
Graduate Research: Neural Radiance Fields (NeRF) for 3D scene reconstruction and novel view synthesis

Harbin Institute of Technology   Harbin, China
Bachelor of Architecture   *Jun 2020*
Focus: 3D Modeling, Computational Design