

Bei Liu

404-900-8813 | liubei021123@gmail.com | github.com/buzhibujuelb

EDUCATION

Georgia Institute of Technology (GT) <i>M.S. in Computer Science(Computer Graphics); Expected Dec 2026 (supports Co-op Program)</i>	Aug. 2025 – Present Atlanta, USA
University of Electronic Science and Technology of China (UESTC) <i>B.E. in Software Engineering (Digital Animation); GPA: 3.89</i>	Sept. 2021 – Jun. 2025 Chengdu, China
University of California, Berkeley (UCB) <i>Visiting Student; GPA: 4.0; Course Grades: CS188 (A+), CS61C (A+), CS169A (A)</i>	Aug. 2023 – Dec. 2023 Berkeley, USA

EXPERIENCE

Client Development Intern <i>TikTok (ByteDance)</i>	Mar. 2025 – Jun. 2025 Beijing, China
- Collected and consolidated release data across multiple internal platforms (Goofy deploy, ByteDance cloud, Fengshen dashboards, AB test tables) to evaluate version quality and release health. - Designed interactive line charts and dashboards to visualize version trends, gray release durations, and experiment outcomes, enabling rapid monitoring of release performance. - Generated structured weekly Feishu reports combining text, tables, and calendar metrics, and developed Feishu bots to push card notifications and alerts for timely tracking of code quality.	
Game Client Developer Intern <i>Tencent Timi L2 Studio</i>	Jan. 2024 – Jul. 2024 Chengdu, China
- Implemented gameplay features for an FPS title based on Honor of Kings IP using Unreal Engine 5. - Developed and optimized multi-resolution coordinate transformations for store and character selection, and restructured components such as health bars, map, and mobile button layouts via C++ with TypeScript. - Refactored and modularized UI components using PuerTS, enabling reusable layouts and device-specific adjustments for rapid iteration.	

PROJECTS

GPU Path Tracing Renderer Based on NVIDIA OptiX 	Feb. 2025 – May. 2025
- Designed and implemented a Monte Carlo path tracer using CUDA OptiX framework supporting diffuse, metallic, and transparent materials. - Developed HDR environment lighting, BSDF material models, texture mapping, and ImGui-based interactive parameter controls. - Assembled a complete OptiX pipeline by configuring modules, populating Shader Binding Tables, building acceleration structures, and integrating post-processing effects.	
Environmental Detection System Based on Raspberry Pi and YOLOv5 	Sep. 2022 – Jun. 2023
- Led a team in developing a real-time environmental monitoring system using Vue-Element-Plus and Flask. - Reduced video transmission latency below 0.2s and implemented real-time flame detection with YOLOv5s.	
Pacman AI Implementations (CS188 Projects)	Sep. 2023 – Nov. 2023
- Implemented AI algorithms for the classic Pacman game using Python. - Applied search pruning, CSP, MDP, RL, Bayesian networks, and hidden Markov models.	

AWARDS

Silver Medal , The 2024 ICPC Asia Hong Kong Regional Contest	Dec. 2024
First Prize (National 1st Place), 15th Lanqiao Cup National Final (Python Group)	Jun. 2024
Gold Medal , 15th Sichuan Province Programming Contest for College Students	Jun. 2023
First Prize (National 5th Place), 14th Lanqiao Cup National Final (C/C++ Group)	Jun. 2023
Bronze Medal , National Olympiad in Informatics (NOI) 2019, Division D	Jul. 2019

SKILLS & INTERESTS

Programming & Frameworks: C++, Python, JavaScript, TypeScript, C, Unreal Engine, Unity, C#
Graphics & Games: Gameplay, Computer Graphics, Rendering, Game Engine