

Ethan Loo

470-301-5218 | ethanlooyt@gmail.com | [linkedin.com/in/ethan-loo-73a1b0236/](https://www.linkedin.com/in/ethan-loo-73a1b0236/) | [shiloh4.github.io](https://github.com/shiloh4)

EDUCATION

Georgia Institute of Technology
BS Computer Science - CGPA: 3.84

Atlanta, GA
May 2022 - May 2026 (anticipated)

EXPERIENCE

Keysight Technologies | Eggplant
QA Engineer Intern

Penang, MY
May 2024 - Aug. 2024

- Authored and debugged automated model-based and script-based test scripts in Eggplant Functional. Discovered 4 breaking bugs and led development of automated MBT tests for the respective test cases. Wrote approximately 300 lines of code in SenseTalk.
- Spearheaded the development and implementation of front-end, back-end, and other test procedures (**Cypress tests**, API/BDD tests, MBT tests) for new systems and application features under development.
- Collaborated in defining the minimum viable product (MVP) for Eggplant DAI version 7.5.0-0.

PROJECTS

Technique *React — TypeScript*

- Architected and implemented five dynamic React/TypeScript pages (News, Life, Opinions, Entertainment, Sports) using React Router for client-side routing and Axios for paginated REST API calls.
- Engineered a WYSIWYG editorial dashboard by integrating **QuillJS** for rich-text creation and **react-dropzone** for drag-and-drop media uploads; secured assets with presigned S3 URLs to a CDN, added client-side file-type/size validation and real-time upload progress indicators.
- Ensured mobile-responsive layouts with CSS Grid & Flexbox; applied ARIA roles/labels and conducted cross-browser QA (Chrome, Safari, Firefox) to meet WCAG AA standards.
- Collaborated in 1-week Agile sprints within a 7-person team: managed Git feature branches, led peer code reviews on GitHub, enforced ESLint formatting.

Vertically Integrated Project: Video Game for Power Grids *Unity | C#*

- Developed and maintained Azure server with a focus on secure Gurobi API endpoints, efficient concurrency handling, and thread-safe configuration, ensuring high-performance and reliable data management for optimization simulations. Used an **ASP.NET Core controller to handle HTTP Post requests**.
- Designed and implemented a robust **Gurobi optimization model** to simulate and analyze power grid scenarios, optimizing power flow and reducing operational costs.
- Engineered cache fallback and lookahead systems that maintained real-time data delivery during server connectivity issues (e.g., packet loss, high latency), ensuring uninterrupted system performance.
- Planned and developed the UI/UX design for the video game using pixel/3D rendering software like Aseprite and MagicaVoxel.

AgentArena (AI ATL 2024) *React*

- Developed a web-based LLM simulation platform using React for the frontend and Flask for the backend, enabling users to simulate and analyze agent interactions in multi-agent scenarios (Prisoners' Dilemma). Utilized Fetch API and React Hooks to dynamically fetch and update game state data in real-time.
- Leveraged Plotly.js for interactive data visualization, displaying agent performance metrics such as **niceness, forgiveness, retaliatory, troublemaking, and emulative behavior** over multiple simulation rounds.

SKILLS & TECHNICAL EXPERIENCE

Languages/Frameworks: HTML, CSS, JavaScript, TypeScript, React, React-Native, Java, Python, C, C#, SQL
Software Applications: Android Studio, Firebase, Docker, MySQL, Unity, Figma, MagicaVoxel, Aseprite, Affinity Suite, Microsoft Excel, Atlassian (Jira, Confluence)

LEADERSHIP

Georgia Tech Malaysia Student Association *Jan. 2023 - May 2024*
Head of Outreach

- Designed impactful social media content and graphic designs using Affinity Photo and Designer, boosting Instagram engagement by 6%.

Extracurricular Achievements:

- Achieved 1st Degree Black Belt in Taekwondo ITF.
- Achieved PADI Open Water and Advanced Open Water Diver License.
- Completed BWC (Basic Wall Course) top rope sport climbing certification.