

Richard Luo

✉ luo.richard@gmail.com ☎ (408) 816-6915 in <https://www.linkedin.com/in/richardluorl/>

🔗 <https://github.com/Skyline-9> ➡ <https://skyline-9.github.io/> 🇺🇸 U.S. Citizen

Education

Georgia Institute of Technology, M.S. in Computer Science

Atlanta, GA

Admitted to BS/MS program (expected 08/2023 - 05/2024)

Concentration: Machine Learning

Georgia Institute of Technology, B.S. in Computer Science

08/2020 – 05/2023 | Atlanta, GA

4.0 GPA, Concentration: Artificial Intelligence, Information Internetworks

Extracurriculars: The Agency (ML Club) - Vice Internal Operations, GreyHat (Cybersecurity Club)- Vice President

Coursework: Intro to AI, Design & Analysis of Algorithms, Computer Systems and Networking, Intro to Database Systems, Automata and Complexity, Mobile Apps, Combinatorics, Intro to Discrete Maths, Linear Algebra, Multivariable Calculus

Professional Experience

Software Engineering Intern, Ultimate Kronos Group

05/2022 – 08/2022 | Remote

- Developed new features as part of Workforce TeleStaff New Product Development Team in Agile lifecycle.
- Created Angular proof-of-concept for TeleStaff, which improves UI/UX, increases responsiveness, and meets WCAG 2.1 Accessibility guidelines. Established reverse proxy to make calls with existing backend and support legacy code.
- Implemented REST APIs using Java Spring Services to support CRUD operations for MSSQL database.
- Privately presented project to VPs, Directors, and Project Managers to demonstrate a profitable future direction.

Research Assistant, Georgia Tech RAIL Lab

08/2021 – 08/2022 | Atlanta, GA

- Working with Dr. Chernova in Robot Autonomy & Interactive Learning (RAIL) Lab on developing better deep-learning models for smart-home active assistance based on sensor prediction

Cyber Security Analyst, Georgia Tech Security Operations Center

06/2021 – 08/2021 | Atlanta, GA

- Identified, triaged, and mitigated security incidents in network with FireEye and Palo Alto Networks Cortex XSOAR
- Reviewed compromised systems and worked alongside sysadmins to appropriately mitigate any active threats

Undergraduate Researcher, Georgia Tech Research Institute

01/2021 – 08/2021 | Atlanta, GA

- Researched privacy-preserving biometric authentication under the supervision of Dr. Wenke Lee
- Built frontend with React.js/Tensorflow.js for facial recognition and detection
- Implemented OAuth 2.0 Authorization/Identity server for SSO using Java/SQL backend.

Projects

Reddit Place Script, Open Source Project On GitHub 🔗

04/2022

- Managed (project admin and contributor) reddit-place-script-2022, becoming GitHub's #1 trending repository for April 4-5 by working on image manipulation + API calls and reviewing PRs & responding to issue tickets

HokusAI [1st Place Digital Track Horizons Hackathon Winner] 🔗

03/2022

- Leveraged OpenAI's Contrastive Language-Image Pre-training and a Vector Quantized Generative Adversarial Network (VQGAN) to turn text prompt into art
- Built frontend with React.js. Implemented Firebase authentication and used Firestore as NoSQL cloud database

Sketch2Drawings 🔗

02/2021 – 02/2022

- Used Conditional Generative Adversarial Networks (cGANs) to turn black-and-white sketches into a colorized drawing by creating a deep-learning mapping of paired image-to-image translation on sketches and drawings
- Created synthesized dataset by pairing pictures with their respective edge detected counterpart created by Canny

InvestigatAR 🔗

10/2021 – 10/2021

- App allows users to view a 1:1 Augmented Reality replica of a product just by scanning a QR Code or by running object detection. React Native/ViroAR in the frontend and Java Spring Boot/MongoDB in the backend
- Built a Flask server and PyTorch YOLO object detection model API, created backend endpoints in Java Spring Boot, and made API calls using Unirest and Axios

Skills

Languages: Java, Python, JavaScript, TypeScript, SQL, C, C++, HTML, CSS

Frameworks/Tools: Tensorflow, Keras, scikit-learn, NumPy, OpenCV, React.js, Angular, Apache Tomcat, Express.js, Node.js, Java Spring, JUnit, Mockito, Docker, Google Firebase, Git, Postman, MSSQL Server Management Studio