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
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, 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 Accessability 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.

Research Assistant, *Georgia Tech RAIL Lab*   08/2021 – Current | 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 – Current
- 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