Richard Luo

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in https://www.linkedin.com/in/richardluorl/ https://github.com/Skyline-9

↖ https://skyline-9.github.io/ ⚑ United States of America

Education

Georgia Institute of Technology, *B.S. Computer Science, 4.0 GPA* Atlanta, USA
Expected Graduation: May 2023
- Agency (ML Club) - Vice Internal Operations, GreyHat (Cybersecurity Club)- Vice President
Coursework: Linear Algebra, Multivariable Calculus, Design & Analysis of Algorithms, Intro to Discrete Maths, Combinatorics, Intro to AI, Objects and Design, Computer Systems and Networking

Professional Experience

Georgia Tech RAIL Lab, *Research Assistant* 2021/08 – Current │ Atlanta
Working with Dr. Chernova in Robot Autonomy & Interactive Learning (RAIL) Lab on smart-home active assistance based on deep-learning sensor prediction.

Georgia Tech Security Operations Center, *Cyber Security Analyst* 2021/06 – 2021/08 │ Atlanta
Identified and mitigated security incidents with FireEye and Palo Alto Networks Cortex XSOAR, triaged incoming threats, and managed network traffic. Reviewed compromised systems and worked alongside system administrators to appropriately mitigate any active threats

Georgia Tech Research Institute, *Undergraduate Researcher* 2021/01 – 2021/08 │ Atlanta
Researched privacy-preserving biometric authentication under the supervision of Dr. Wenke Lee. Built frontend with React.js/Tensorflow.js for facial recognition and detection and implemented OAuth 2.0 Authorization/Identity server for SSO using Java/SQL backend.

Skills

Java, Python, C++, C, Machine Learning, Git, Tensorflow, Numpy, HTML, CSS, Javascript, React.js, Docker, SQL, Postman

Awards

BSidesBOS CTF (Top 1% Worldwide) 9th Place 2020
CSAW CTF Finalist Qualifier 2020
CUCTF 2nd Place Winner 2020

Projects

Reddit Place Script, *Open Source Project On GitHub* 🔗 2022/04
Early contributor and admin for reddit-place-script-2022. GitHub's #1 trending repository for April 4-5. Worked on image manipulation & API calls and project management (reviewing PRs, responding to issues)

HokusAI [1st Place Digital Track Horizons Hackathon Winner] 🔗 2022/03
Leveraging OpenAI's Contrastive Language–Image Pre-training and a Vector Quantized Generative Adversarial Network (VQGAN), HokusAI turns a text prompt into art. Frontend was built with React.js, and support for VR was added with WebXR. Database and authentication built with Firebase.

InvestigatAR 🔗 2021/10 – Current
Powered by React Native/ViroAR in the frontend and Java Spring Boot/MongoDB in the backend, this 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. 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.

U2 Background Removal 🔗 2021/06 – Current
State-of-the-art deep-learning based background removal built with U2-Net, a concise yet powerful deep network architecture for salient object detection