Keyan Alexander Rahimi

Portfolio: kevan.us | github.com/KevanTheGreat | Email: keyan rahimi@brown.edu



EDUCATION

Brown University

B.S Computer Science, Professional Track - AI/ML & Security **B.S** Cognitive Neuroscience

Relevant Coursework: Deep Learning, Machine Learning, Deep Learning Behaviors, Computational Linguistics, Computer Vision, Cyber Security, AI & Security, Software Security, Computer Systems, Data Structures & Algorithms, Software Engineering, Statistics, Discrete Structures, Linear Algebra, UI/UX

WORK EXPERIENCE

Brown University, Undergraduate Teaching Assistant (AI & Security)

- Providence, RI | August 2025 Present Hired to teach students taking CS1640: AI & Security. Ran office hours, graded assignments, and developed course materials.
 - Designed 3 new coding assignments and 3 online quizzes for the course.

NSF REU Site, Undergraduate Researcher

- Selected among 9 out of 300+ students to participate in a fully funded competitive Research Experience for Undergrads, focused on AI for Emergent Networks in Intelligent Transportation Systems, at the University of Alabama.
- Developed an App and LLM for indoor localization and navigation, which inputs a picture and paths users through buildings.
- Applied previous knowledge on LLMs to autonomous vehicle security, using a model to find security vulnerabilities in the software supply chain of autonomous vehicles.

AI Predictive Analytics Lab, Undergraduate Researcher

- Mississippi State University | January 2024 June 2025 Published 5 peer-reviewed research papers applying Deep Learning to applicable problems and covering CNN architectures in depth, as a member of the PATENT Lab at Mississippi State University.
- Implemented various CNN models, including VGG-19 and ResNet, to test defenses against adversarial attacks, improving robustness against standard Fast Gradient Sign Method (FGSM) attacks by 12% over current state-of-the-art models.

Carney Institute for Brain Science, Undergraduate Researcher

- Brown University | September 2024 January 2025 Worked within the Center for Computational Brain Science at the Serre Lab, focusing on the future of advanced NeuroAI.
- Started a new project within the lab regarding the intersection of artificial and natural intelligence, creating a test benchmark to compare DNNs' ability to perceive depth against humans.

Potentia Analytics Inc., Software Engineer Intern

- Applied an AI model over 2 summers to improve the efficiency of patient flow in hospital emergency rooms by 27%.
- Led a team to develop a full-stack enterprise healthcare app for a dental company, now used by over 350 clinics in Canada.
- Engaged in communication with clients alongside the project manager, tweaking goals and adjusting product strategies. •

PUBLICATIONS

- 1. Rahimi, Kevan, and Noorbakhsh Amiri Golilarz. "Deep Neural Network-based Methods for Brain Image De-noising: A Short Comparison." International Journal of Advanced Computer Science & Applications 15.2, 2024.
- 2. Golilarz, Noorbakhsh Amiri, Elias Hossain, Abdoljalil Addeh, and Kevan Rahimi. "Learning Algorithms Made Simple." arXiv preprint arXiv:2410.09186, 2024. (Under submission)
- 3. Golilarz, Noorbakhsh Amiri, and Keyan Rahimi. "Image Denoising using Modified Cumulative Distribution Function in the Wavelet Domain." IEEE 16th International Conference on Computational Intelligence and Communication Networks (CICN), 2024.
- Golilarz, Noorbakhsh Amiri, and Keyan Rahimi. "Optimized Adaptive Based Method for MR Image Denoising." IEEE 16th 4. International Conference on Computational Intelligence and Communication Networks (CICN), 2024.
- Kansana, Manish, Keyan Rahimi, Elias Hossain, Iman Dehzangi, and Noorbakhsh Amiri Golilarz. "Edge-Based Learning for 5. Improved Classification Under Adversarial Noise." arXiv preprint arXiv:2504.20077, 2025. (Under submission)

University of Alabama | May 2025 - August 2025

Starkville, MS | June 2023 – August 2024

Providence, RI | Graduate May 2026

Keyan Alexander Rahimi



Cambridge, MA | October 2023

Portfolio: kevan.us | github.com/KevanTheGreat | Email: keyan rahimi@brown.edu

LEADERSHIP EXPERIENCE

Alpha Delta Phi Literary Society, Undergraduate Parliament President Providence, RI | December 2023 – Present

- Served the interests of the national society alongside the Graduate Board of Governors, corresponding with individual society chapters and a vast alumni network. Managed and allocated the dividends of a \$1,300,000 endowment portfolio.
- Planned, organized, and led 24 societal and academic events totaling 300+ attendees, culminating in the initiation of 55 new members over 2 years. Also served under the roles of chapter Vice President, House Manager, and Recruitment Chair.

Brown University Computer Science, *Departmental Undergraduate Group Officer* Providence, RI | August 2023 - Present

- Mentored CS undergrads, connecting them with job and research opportunities through informative and academic events.
- Coordinated with faculty to create helpful resources and masterclasses, operating as a branch of the department's programs. Providence, RI | August 2023 - Present

Brown University Esports, *Executive Committee Head*

- Created a login & authentication system for the communal gaming lounge, allowing users to keep saved settings upon return.
- Coordinated events on campus, including console pop-up days, totaling 300+ attendees, and distributed a \$20,000 budget.

FEATURED PROJECTS Repos, papers, and case studies are on my Personal Website: https://keyan.us/

Neural Network Education | Pytorch, React, Resolve (Link)

- Led a team to deploy a React website containing a fully coded neural network image classifier along with an educational video and explanation, to teach beginners and young adults about neural networks and the function of AI.
- DriverAI Redesign | Figma, HTML/CSS, Iterative Design (Link)
 - Facilitated a team effort to redesign the Y Combinator company Driver AI website from the ground up, adapting to feedback to develop sketches, wireframes, design assets, and present a final website mockup to the founders.

Brown Dorm Finder | Java, React, HTML/CSS (Link)

- Partnered with University Reslife to create a secure full-stack web app for students to filter through 1,000+ dormitories.
- Rocket Recall | React. JavaScript. SOL (Link)
 - Full-stack programmed web app built to test for signs of early Alzheimer's disease in participants by giving them a set of different coded puzzles each day, keeping track of their progress over time, and sending them detailed cognitive reports.
- Way Back Home | Unity, C++, HTML/CSS (Link)
 - Launched a fully coded Unity game onto a web browser using WebGL, building it from the ground up, including game physics, website compatibility, animations, and level design. Selected as Hack@Brown 2023 winner.

Denoising MRI Images using Deep Neural Networks | Python, Tensorflow, Keras (Link)

Researched common and robust methods to denoise brain images and compared them against using three different deep neural networks, weighing the benefits of using deep CNNs in a published paper.

Image Denoising Using Modified CDF in the Wavelet Domain | Pytorch (Link)

Implemented a modified Cumulative Distribution Function (CDF) combined with a nonlinear function to denoise various types of images, such as MRI, with a 9% improvement over conventional methods, while preserving image edges and clarity.

Impact of Adversarial Noise on Deep Learning for Image Classification | Python, Jupyter Notebook (Link)

Wrote a comprehensive review on the impact of adversarial noise, including its origins, common methods of attacks, and current defenses. Tested an alternate approach to a defense which improved the robustness against FGSM attacks by 12%.

Applications of LLMs for Finding Security Vulnerabilities for Autonomous Vehicles | Pytorch, Autoware

Applied previous knowledge on LLMs to emerging autonomous vehicle security, using a model to diagnose software issues.

AWARDS

Hack@Harvard 4th Place

Led a team to create a full-stack web app that generates daily puzzles for users to track signs of early Alzheimer's long-term. Hack@Brown Winner Providence, RI | January 2023

- Led a team to create a fully functional Unity game connected to a browser using WebGL. Completed in under 24 hours. **MIT iOuHack Winner** Cambridge, MA | January 2021
- Worked with a team to create a simple quantum software tool using the Qiskit SDK, ran on an actual quantum computer. Auburn, AL | January 2020

BEST Robotics National Champion

Served as head developer and team lead of 60+ members, winning a national robotics title competing against 300+ other schools in robot driving, programming, marketing, CAD, and technological exhibition.

SKILLS & TECHNOLOGIES

Languages: Python, Java, C/C++/C#, Typescript, Javascript, HTML/CSS, SQL, GoLang

Technical Skills: Git, Node.js, React, Angular, Vue, Vite, Django, Docker, MongoDB, JAX, Firebase, Pytorch, Tensorflow, Keras, Linux, OpenGL, Figma, Unity, Adobe Suite, Full Stack Development, Agile Development, Systems Engineering, AI/ML