Rian Rahman

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Education

Georgia Institute of Technology — Atlanta, GA
Bachelor of Science Degree in Computer Science, GPA: 3.88 — *Expected Graduation: May 2025*

Experience

HP Inc. — Fort Collins, CO
Software Engineer Intern — *May 2023 – Present*

- Implementing a browsable graph visualization that enables users to seamlessly comprehend the intricate connections among 20,000+ HP-related API entities spanning across 15 distinct types
- Deploying the graph on the global hp.dev catalog site, which delivers significant time savings for ∼7,000 employees by eliminating the need for manual searches of entity relations across multiple catalogs
- Utilizing React, TypeScript, and Highcharts for the dynamic UI and employing GraphQL to query data from HP's API catalog backend
- Leading demos of the visualization to managers during sprints, using Scrum to assess their needs and achieve stakeholder satisfaction

Georgia Institute of Technology's Vertically Integrated Project Program — Atlanta, GA
Research Assistant — *January 2022 – December 2022*

- Applied TensorFlow, NumPy, and OpenCV to develop an AI-powered facial recognition algorithm for miniature robotic blimps and autonomous underwater vehicles, significantly enhancing their maneuvering capabilities
- Incorporated a Raspberry Pi in the blimp, allowing data parsing from the facial recognition system and secure uploading to an SSH server
- Designed a Python to MATLAB GUI interface that effectively utilized complex deep learning techniques, improving the blimp's pathfinding by 30% in terms of image quality and accuracy of detection
- Facilitated with eight teammates to successfully deploy a blimp that broadcasted a Georgia Tech basketball game to ∼1,000 people

NCR Corporation — Atlanta, GA
Software Engineer Intern — *May 2022 – August 2022*

- Revamped NCR's consumer data with streamlined response/request formats by building robust RESTful APIs in Go and Spring Boot
- Developed an intuitive RBAC configuration dashboard in Next.js for NCR's Business Platform, offering internal management for 60+ million GraphQL APIs utilized by 100+ partner organizations
- Empowered users to edit 50+ templates from NCR's Digital Receipt services by integrating an HTML viewer onto the dashboard
- Transformed complex API data into actionable insights with 16 Chart.js visualizations, allowing performance assessment of top 10 organizations, enterprise units, and endpoints
- Ensured seamless integration and optimal dashboard performance by assisting its deployment on the Google Cloud Platform with GitOps

University of Georgia's Computer Science Department — Athens, GA
Teaching Assistant — *June 2021 – December 2021*

- Delivered in-depth feedback on weekly Java labs, guiding ∼110 students in mastering core programming concepts over two semester
- Contributed to 12 Java assignment evaluation tools, significantly reducing grading time of student submissions to under three seconds

Projects

NCR Go | *React Native, MongoDB, Python, Microsoft Azure, OpenCV* — github.com/RiRah123/NCR-Go

- Spearheaded the development of a React Native application with six teammates that leverages computer vision technology to revolutionize the shopping experience by accurately detecting product availability and providing in-store location information
- Connected a neural network to the frontend of the application, optimizing the classification of in-store product images to achieve ∼94% accuracy and organizing inventory data in a MongoDB cluster
- Recognized as top 10 of 401 teams for NCR's Global Hackathon and secured a patent by presenting to the Executive Leadership Team

mfChess | *React, TypeScript, MongoDB, Google Authenticator, WebSocket* — github.com/mfChess

- Collaborated with four teammates to devise mfChess, a deployed React application that enhances the user experience in online chess by implementing faster matchmaking, real-time, in-depth Stockfish-powered analysis, and game-hosting capabilities for 10+ players
- Integrated the site with the WebSocket protocol to efficiently preserve user states and game statistics across 25+ sessions, leading to heightened user collaboration and engagement

EatCode | *React, MongoDB, Express.js, TypeScript, Java, Python, Docker* — github.com/RiRah123/EatCode

- Engaged with seven teammates to build a software engineering technical training website in React, enabling users to enhance their learning experience in data structures and algorithms with 100+ questions supported in five programming languages
- Configured a MongoDB and Express.js backend system that tracks users' progress over the last 365+ days using their Google account ID, ensuring accurate data storage and retrieval of their problem-solving statistics

Technical Skills

Languages: Java, Python, C, C++, JavaScript, TypeScript, HTML/CSS, SQL, GraphQL
Frameworks/Libraries: React, Next.js, Node.js, React Native, D3.js, Spring Boot, Material UI, NumPy, Pandas, Matplotlib, Beautiful Soup
Developer Tools: Jira, Azure, AWS, Postman, Figma, Linux/Unix, Git, Docker, Kubernetes, MongoDB, Google Cloud, Notion, LaTeX
Concepts: Agile Development Process, Data Structures & Algorithms, RESTful APIs, Human-Computer Interaction, UI Design, Data Visualization, Software Development, Object-oriented Programming, Artificial Intelligence, Cloud Computing, Computer Architecture, UML