

Byron Richards

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EDUCATION

University of Virginia

B.A in Computer Science

Graduated 2024

WORK

Software Engineer

IT Concepts — June 2023 - Present

- Built scalable backend systems with AWS Lambda, S3, API Gateway, and DynamoDB.
- Developed React Native mobile app for internal communication and news updates.
- Created a secure office sign-in website with face recognition using TensorFlow's face-api.js.

Software Engineer Instructor

Forge — Aug 2022 - June 2024

- Taught web development for three consecutive semesters at UVA and led two software engineering internship programs.
- Designed and instructed 3-week, full-day (8:30 AM - 5:30 PM) summer training sessions covering Git, React, Express.js, APIs (including OpenAI), NoSQL databases (with Firebase), and debugging.
- Conducted interviews and reviewed applications for the internship program, ensuring top student selection and preparation.

Software Engineer

Forge — Sep 2023 - Feb 2024

- Built full-stack platform with Next.js, TypeScript, and Airtable to connect students and employers.
- Worked in Agile teams, managing tasks via Trello and contributing to code reviews.

Computer Systems TA

University of Virginia — Jan 2023 - May 2023

- Supported a class of nearly 500 students in understanding data representation from binary and assembly to high-level programming in C.
- Graded assignments and offered help during office hours for command-line tools and C programming.
- Discussed security, legal, and ethical issues related to computing.

PROJECTS

Visitor App: A guest sign-in service capturing visitor information, photos, and signatures, stored in AWS S3 and DynamoDB. Built with Vite React (TypeScript) and styled using Tailwind CSS, the app features facial recognition sign-out powered by face-api.js. It is dockerized and runs on ECS.

Employee Mobile App: An employee resource hub providing tools on the go, with a reward system where users submit forms, and data is stored in SharePoint and fetched into the app. Built with React Native (Expo) and a serverless backend, integrating with Microsoft API for work account sign-in.

Talent Board: A Next.js app for building and sharing resumes with potential employers. Integrates with AirTable for backend management, enabling seamless filtering and messaging between talent and companies.

SKILLS

Java, JavaScript, TypeScript, Python, C, SQL, R, React, React Native, Next.js, Express.js, AWS (Lambda, S3, DynamoDB, ECS), Docker, Tailwind, Microsoft API, Airtable, Git