Phillip Hirsch

Charlotte, NC, USA phillip@350home.com (770) 365-0986 in/phillip-hirsch

SUMMARY

Full Stack Software Engineer with expertise in scalable web & mobile applications, AI-driven solutions, and cloud-based architectures. Strong background in React, Python, GraphQL, and AWS (Lambda, S3, DynamoDB). Passionate about solving complex engineering challenges, improving accessibility, and integrating machine learning technologies for real-world applications.

EXPERIENCE

Software Engineer (Contract)

Ally Financial via Brooksource **March 2023 - Present, Charlotte, NC**

- Optimized Ally's mobile banking app, cutting load times by 15% and improving rendering efficiency by 30% through state management optimization and component refactoring.
- Developed & maintained reusable UI components in React, React Native, and TypeScript, improving developer productivity across 5+ enterprise applications.
- Implemented API integrations with Contentful, automating content delivery and reducing manual updates by 40%, increasing operational efficiency.
- Refactored legacy codebase, improving maintainability and reducing technical debt for long-term scalability.
- Strengthened authentication security and ensured adherence to secure coding best practices.
- Improved accessibility compliance (WCAG 2.1), enhancing inclusivity and user experience.
- Mentored junior engineers, reducing onboarding time by 20% and fostering a culture of collaboration.
- Optimized API interactions, improving data-fetching strategies and implementing efficient caching mechanisms to enhance responsiveness.

PROJECT

AI-Powered Text-to-Speech for the Visually Impaired

University of North Carolina at Charlotte

- Designed and implemented a deep learning model using PyTorch and fastai, achieving 95% text recognition accuracy to assist visually impaired users.
- Developed a deep learning-based Optical Character Recognition (OCR) pipeline, leveraging convolutional neural networks (CNNs) to recognize and convert over 85% of handwritten text into speech.
- Implemented a custom text-to-speech synthesis engine, enabling real-time audio output without reliance on third-party APIs.
- Deployed the solution as a Python-based application, ensuring seamless user interaction and improving assistive technology usability.

EDUCATION

Master of Science in Computer Science

University of North Carolina at Charlotte • December 2022

Bachelor of Science in Computer Science

University of North Carolina at Charlotte • May 2021

SKILLS

Languages: JavaScript, TypeScript, Python, Java, SQL, NoSQL

Front-End: React, React Native, Remix, Next.js

Back-End & APIs: Node.js, Express.js, RESTful APIs, GraphQL

Cloud & DevOps: AWS (Familiar with services such as Lambda, S3, and DynamoDB), Docker

Testing & Security: Jest, Cypress, Authentication security, OWASP principles, Secure API development