

# Ethan Fulcher

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## EXPERIENCE

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### Credit Karma

*Software Engineer III*

2024 - Present

- Architected novel passkey authentication prototypes and ID verification systems, authoring comprehensive Technical Design Documents (TDDs) and executing the migration of critical micro-frontend applications to NextJS
- Led team AI adoption initiatives: auto updating team static site content based on meeting transcriptions, coding agent rulesets, and standardizing LLM tools for codebase quality
- Designed and migrated micro frontend applications to NextJS, led frontend design for passkey prototyping across Intuit and CK, and novel document verification

*Software Engineer II*

2023 - 2024

- Engineered identity verification logic and authored TDDs for multi-factor authentication (MFA), implementing protocols to ensure compliance with rigorous application security standards
- Orchestrated the technical migration of ~1.9MM user accounts, translating cross-functional stakeholder requirements into optimized login flows that maintained data integrity throughout the platform transition

*Software Engineer I*

2022 - 2023

- Drove monthly increase of 1,000 new users and 1.1MM new logins per month for 17MM in incremental revenue per year
- Used React to build ~50 member login & registration A/B tests to improve new and returning user metrics in React within micro frontend architecture, supporting the evolution of funnel optimization through close partnership with product and analytics

### Target

*Software Engineering Intern*

2020 - 2021

- Reverse engineered APIs to reduce load on production databases, built full stack order lookup functionality for store support teams, and partnered with internal stakeholders to deliver performance recommendations based on database analytics

### Michigan State University, College of Engineering

*Graduate Teaching Assistant*

2019 - 2022

- Lead teaching assistant (nonconcurrent) for Big Data Analysis, Database Systems, and Discrete Math

## PROJECTS

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### Test User Creation Dashboard (2023 - present)

*Credit Karma internal side project*

- Architected a scalable internal platform facilitating the provisioning of synthetic user data for approximately 10,000 employees, implementing an iterative development cycle through integrated feedback loops from cross-functional stakeholders to refine UI/UX functionality and backend data integration

### Generative AI Social Media Text Model (2020)

*Personal project*

- Fine-tuned one of OpenAI's GPT-2 unsupervised learning large language models to create new tweets based on scraped posts from a specified user's Twitter history

### Scheduling Alert Queue (2020)

*Personal project*

- Engineered a web automation framework that optimized polling frequency to monitor university engineering scheduling resources, integrating Twilio APIs to trigger alerts upon detecting availability state changes prior to project sunseting for university IT network policy compliance

## EDUCATION

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### MS, Computer Science - Michigan State University, College of Engineering

2022

*Relevant Coursework:* Artificial Intelligence, Natural Language Processing, Evolutionary Computing, Advanced Computer Networks

### BS, Computer Science - Michigan State University, College of Engineering

2021

*Relevant Coursework:* Data Mining, Big Data Analysis, Algorithm Engineering, Internet of Things, Database Systems

## SKILLS

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**Languages and Technologies:** TS/JS, React, LLM prompting, Python, GraphQL, A/B testing, technical writing