

Matthew Frucht

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EDUCATION

Cornell University

B.S. in Information Science
Focus Area in Computer Science
Minor Concentration in Business
Grad. May 2021
Cum Laude

COURSEWORK

Computer Science

Functional Programming in OCaml
OOP & Data Structures
Computing in Python
Design and Programming for the Web
Data-Driven Web Apps
Data Science

Understanding Users

Human-Computer Interaction
Networks
Teams and Technology
Language and Information
Designing Tech for Social Impact
Tech Ethics, Law, and Policy
Choices and Consequences of Computing

Business

Business Management
Finance
Financial Accounting

SKILLS

Programming Languages

C#, Python, Java, JavaScript, OCaml

Frameworks and Packages

.NET, React.js, NumPy, Pandas, Flask,
Beautiful Soup, Socket.IO, D3.js

Tools

Azure DevOps, AWS, CosmosDB, SQL,
CI/CD, Usability/UX Testing, Figma

Activities

Delta Tau Delta Fraternity

Vice President (2020)
House Manager (2019)
Philanthropy (2019)

Order of Omega Honor Society

Member (2020-2021)

Cornell Hillel

Member (2017 – 2021)

INTERESTS

Reading • Music • Cooking
Outdoors • Climbing

TECHNICAL EXPERIENCE

Microsoft

November 2021 – May 2023

Software Engineer, Supply Chain Deliver Team

- Built out new front-end for user management portal. Worked with Product Manager to understand users' needs, created mocks in Figma, and coded feature in React.
- Maintained and improved a highly-scalable ordering service that handles millions of requests per week and generates \$4 billion in revenue annually. Backend in C#, data primarily in SQL, frontend in React.
- Led the month-long handoff process after a re-org resulted in the ordering service being transferred to another team. Organized and delivered detailed knowledge transfers, diagrammed data flows and service architecture, and brought together partners and dependent teams for alignment.
- Implemented RESTful APIs for Microsoft's Order Status microservices, allowing partners to more easily access the status of orders shipped through Microsoft's supply chain.
- Patched security vulnerabilities in 8 services by fixing bugs, refactoring code to migrate from .NET Framework to .NET 6, and upgrading packages.
- Implemented use of Azure App Configuration in 8 services to streamline secure variable storage.
- Took over ownership of service responsible for Microsoft's consignment sales in Japan and Korea in March 2023, improving and testing server-side code deployed in Azure Service Fabric.
- Participated in regular two-week 24/7 on-call shifts. Involves collaborating with partner teams to troubleshoot live production issues and preparing reports for weekly organization-level live site meetings.

Cornell Future of Learning Lab

Summer 2020

Software Engineer Intern

- Worked on CourseCrafter, an information retrieval system designed to help students choose courses based on natural-language input. Linked from Cornell's official course roster and used by thousands of students.
- Implemented new querying methods and adjusted the application for new displays of course modalities. Used React paired with a Flask backend.

TEACHING

Teaching Assistant • INFO 3450: Human-Computer Interaction

Cornell University | Fall 2020 – Spring 2021

- Assisted a class of 200 students in understanding the human-centered design process.
- Topics included user research interviews, personas, usability testing, heuristic evaluation, storyboarding, paper prototyping, and digital prototyping using Figma and Balsamiq.

Teaching Assistant • CS 1110, 1133: Intro CS Using Python

Cornell University | Fall 2018 - Spring 2020

- Held office hours, facilitated lab sessions, and graded work for a class of over 800 students learning Python and the fundamentals of programming.

PROJECTS

Advanced Calculator in OCaml

- Collaborated on building a domain-specific language in OCaml for mathematical computations. Developed functionality in the interpreter, lexer, and parser to allow for the symbolic solving of algebraic expressions; worked on algorithms for GCD and LCD; and rigorously tested code.