

Jacob Fallin

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Stevens Institute of Technology: *Bachelor of Science in Computer Science*

August 2016 – May 2020

WORK EXPERIENCE

Freelance Software Consultant

October 2021 - Current

Software Engineer

Franklin, NJ / San Francisco, California

- Co-founded and currently developing **Kryptools**, a cryptocurrency tax platform for retail and small business in Norway. Built with NextJS, TypeScript, Tailwind, Supabase. The platform improves on the existing market offerings by offering simpler usage, rich analytics of transactions, and integration with the Skatteetaten.
- Managed **Curated**, a retail and interior decoration consulting platform, where I implemented a full-stack e-commerce solution with React and MongoDB for inventory and logistics management. Ran the in person business operations and generated \$1000's in monthly revenue.
- Designed Web3-based solutions including building an NFT generator with Python, working with the Solana blockchain to mint digital assets using the Metaplex protocol, and developing front end websites.
- Tutored students in Java and Python Programming, providing over 40 students with customized learning plans.

American Express

August 2020 - September 2021

Software Engineer

New York, NY

- Developed backend payment systems in Java, handling millions of transactions and integrating Kafka for event-driven architecture for seamless communication between commercial buyers and suppliers.
- Implemented performance testing with JUnit, creating test scenarios to simulate thousands of user requests and identifying bottlenecks for improved system scalability.
- Enhanced the frontend of commercial payment applications using React, Redux, and Hooks, improving user experience, and reducing downtime and support tickets.
- Automated CI/CD pipelines using Jenkins and integrated with Docker containers for efficient code deployment and version control and production rollout, while collaborating in an Agile environment.

American Express

June 2019 - August 2019

Software Engineering Intern

New York, NY

- Restructured asynchronous multithreaded HTTP requests, speeding up data exportation by over 50%.
- Developed RESTful APIs with the Katharsis framework, integrating over 100 internal projects.
- Built a model of end to end tests using the Cypress framework, increasing test coverage to 100% for the team.

Citigroup

June 2018 – August 2018

Summer Analyst

New York, NY

- Wrote Python and VBA scripts to automate management of CMBS data for over \$20B of live and historic deals.
- Built financial models for over \$3B of properties in Excel to determine information such as EBITDA, LTV ratio, Net Cash Flow, and presented them in detailed reports, aiding in key investment decisions.
- Automated data aggregation for the underwriting process, created credit committee memos and pitch decks used in internal and client meetings.

Tipevo

April 2017 - August 2017

Software Engineering Intern

Ridgefield, CT

- Created web scraping and filtering tools to gather comprehensive data on 20,000+ youth sports clubs.
- Wrote APIs with Perl for internal company tools to interact with SQL tables for data storage and manipulation.
- Developed an Android application to set up a MVC architecture and implement beta functionality.

SKILLS

- **Languages:** Python, Java, Kotlin, TypeScript, JavaScript (NodeJS, ReactJS, Redux), SQL, Perl, OCaml
- **Technologies/Frameworks:** Linux, Jenkins, GitHub, JUnit, HTML/CSS, Supabase, AWS, Kafka, Bash, Web3, ML, AI, MongoDB, MySQL, PostgreSQL, Cypress, Docker, Kubernetes, Microservices, CompTia A+

PROJECTS

Ridgewood High School Android Application

November 2015 - May 2016

- Led a team of 10 students on a Git managed project, which is still used by over 1500 students each year.
- Reported team progress to CS teacher, school principal, and school board,
- Implemented custom scheduling, absent teacher lists, and special announcements using Java, PHP, Python, and MySQL. Worked on a web application for analytics and internal editing using JavaScript and Ruby.