

## EXPERIENCE

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### Senior Software Engineer, L3 Expert Developer

October 2023 - Present

IBM

Armonk, NY

- Led the development of several critical microservices utilizing Java Spring Boot. This includes the mail service for email notifications crafted with Thymeleaf, a batch service that handles 10+ critical cron jobs using Spring Boot's scheduling interface, and interoperates with IBM MQ queues through the use of JMS MQ and Cloudant.
- Constructed a multi-threaded Exporter Service for data management between IBM Cloudant, DB2 databases, and ICA legal document generation, leveraging Java Spring Boot, Apache POI, and LibreOffice's LibrePDF.
- Managed IBM's CI/CD Maven and Node.js pipelines, enhancing delivery efficiency for numerous teams.
- Integrated End-to-End (E2E) User Interface testing into IBM's CI/CD pipeline, enhancing software testability.
- Developed system for Time-Based One-Time Passwords (TOTPs) to streamline automated E2E testing.
- Built an automated Python script, GitHub SSH Key Manager, which streamlines the process of generating and uploading SSH keys to GitHub or GitHub Enterprise accounts.

### Software Engineer II, L2 Experienced Developer

May 2021 - October 2023

IBM

Southbury, CT

- Developed a Spring Federated Auth Server integrated with IBM w3id SSO Open ID Connect 1.0 and IBM db2 database, enhancing authentication.
- Implemented a Search UI with multi-faceted filters and pagination using Next.js, Carbon Design System for React and Java Spring Boot.
- Developed a full-stack, editable data-table component using Carbon Design System and React Hook Forms.
- Created a custom Sidebar Tabs component via React's Carbon Design System, improving app navigation.
- Contributed to IBM's CIO CI/CD, creating custom CI/CD pipelines with enhanced support for Java v17, Maven, Spring Boot, and Node.js v18 LTS.
- Created an internal secrets updater reducing time spent updating secrets in IBM's CI/CD pipeline by 99.99%.
- Developed and inner-sourced the Spring Secrets Manager using Spring Boot v3 framework and IBM Cloud Secrets Manager for secure keystore retrieval.
- Developed and implemented a Multipart File Uploader project to expedite the process of integrating multipart file upload functionality using Spring Boot and React.
- Deployed a shift-left DevOps strategy emphasizing application security and industry-standard best practices.
- Enabled handling of approx. 150k files during quarterly close periods via Direct File Import (DFI) feature.
- Utilized Apache POI in a Java Spring Boot microservice for dynamic Excel document creation and parsing.
- Improved user authentication and security by implementing secure cookie management by setting the 'HTTPOnly' and 'Secure' flags on JWT and refresh token cookies to prevent cross-site scripting (XSS) attacks.

### Software Engineer I

May 2020 - May 2021

IBM

Southbury, CT

- Implemented a chatbot with JWT-based user authentication and custom features such as media embedding through Box and application commands, facilitating personalization for iframe embedding. Conducted cross-functional demos, led implementation, and proliferated chatbot solutions throughout the organization.
- Improved data table performance with front-end pagination, achieving instantaneous load times.
- Utilized Swagger for API documentation of Java and Node microservices, streamlining team workflows and enhancing downstream integration efficiency.
- Developed an end-to-end Data Table feature for the Ledger Listing page using dynamic front-end filtering, sorting, and enabling instantaneous data filtering.
- IBM Developer JumpStart 2020 Slam participant where I collaborated with a team of engineers under a senior guide to tackle a department-specific issue. Resulted in the development of Krios, a GitHub bot for maintaining up-to-date dependencies, achieving enhanced DevSecOps in IBM Research. Awarded 2021 People's Choice Award for best Proof of Concept and Presentation.

### Software Engineer Intern

May 2019 - August 2019

IBM

Southbury, CT

- Constructed a modal state management system that leverages Carbon Design System for React.
- Participated in IBM's Hack CIO intern hackathon. Led the development of a full-stack web application designed to encourage networking through matching. Integrated with Google Firebase to handle user login, account manipulation, and application data storage. Created and led the application presentation to a group of IBM executives and other hackathon participants.

## EDUCATION

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### Georgia Institute of Technology

Master of Science, Computer Science (Specialization: Computing Systems & Security)

Atlanta, GA

May 2024 (Expected)

### Cornell College

Bachelor of Arts, Computer Science

Mt. Vernon, IA

May 2020

## CERTIFICATIONS

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### Developer Profession - L3 Expert Developer

March 2024 - March 2029

### IBM Profession Champion

November 2023 - November 2025

### Developer Profession - L2 Experienced Developer

March 2022 - March 2027

### IBM BlueCore Coach

March 2023

### IBM BlueCore Mentor

January 2023 - May 2025

### IBM Mentor

September 2021

## AWARDS

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### 2024 Technical Collaboration Achievement (TCAP) Award

Recognized for significant contributions to Inner Source. Delivering innovation that matters is fundamental to how IBM makes our clients and the world work better. The contributions to CIO Developer Experience play a crucial role in the success of IBM's business and in building collaborative ecosystem and implementation of an open approach.

### 2023 Beacon of Excellence Mentoring Award

Celebrates the exceptional mentors and mentees who have dedicated their time, knowledge, and expertise to empower others to achieve their goals and unlock their full potential.

### 2023 Growth Award

A prestigious award for accelerating IBM strategies. A recognition that celebrates not just individual achievement but the power of collaborative innovation.

### 2022 Design Heros Award

Design Success Heroes are individuals and squads demonstrating behaviors that result in superior employee experiences.

## VOLUNTEERING

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### Software Engineering Mentor

January 2021 - Present

IBM

Southbury, CT

- Served as a software engineering mentor for interns, providing guidance, coaching, and hands-on training throughout the internship program.
- Designed and led projects for interns to work on and provided ongoing mentorship and support before, during, and after their internship.
- Coached interns on software development best practices, technical skills, and professional development.
- Successfully prepared interns for full-time positions and assisted with the onboarding process.

### Inner-Source Contributor

June 2020 - Present

IBM

Southbury, CT

- Contributed to IBM's inner-source initiatives by constructing reusable assets and collaborating with cross-function teams.
- Demonstrated expertise in writing clean, well-documented, and maintainable code.
- Collaborated with team members to review pull requests, provide feedback and suggestions, and ensure code met the project's standards.

- Proactively identified and resolved bugs and issues and Contributed to the documentation and testing of the projects.
- Demonstrated ability to work in a collaborative and inner-source environment and a commitment to the principles of inner-source development.

## HACKATHONS & TECHNICAL PRESENTATIONS

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### F&SC Hackathon

September 2021

IBM

Southbury, CT

- Developed a full stack digital assistant web application that leverages IBM Watson.
- Managed a group of four software engineers over the course of three days to develop our POC.
- Created and led presentation of the digital assistant application to a panel of IBM executives.

### HackUlowa Hackathon

January 2020

University of Iowa

Iowa City, IA

- Developed a crowd-sourced stock analyzer and predictor; How much do emotions affect a stock price?
- Leveraged Python, Google Natural Language API, Twitter, and Wikidata query service.
- Managed a group of 3 software engineers over two-day period to develop a POC.
- Created and led presentation of the application to a panel of HackUlowa judges.

### HackCIO Hackathon

July 2019

IBM

Armonk, NY

- Led the development of a full stack web application designed to encourage networking through matching.
- Integrated with Google Firebase to handle user login, account manipulation, and application data storage.
- Created and led presentation of application to a group of IBM executives and other hackathon participants.

## PROJECTS

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**set-me-up** | <https://github.com/nicholasadamou/set-me-up> | *Shell, Python, PHP, AppleScript*

*set-me-up* aims to simplify the dull setup and maintenance of Mac OS and *debian* development environments.

**set-me-up-installer** | <https://github.com/nicholasadamou/set-me-up-installer> | *Shell, Python*

A binary used to install and configure *set-me-up* on *Mac* and *debian* linux machines.

**set-me-up-blueprint** | <https://github.com/nicholasadamou/set-me-up-blueprint> | *Shell*

A template to manage *set-me-up* setups.

**utilities** | <https://github.com/nicholasadamou/utilities> | *Shell*

Custom-made Bash functions & utilities.

**cloudant-backup-service** | <https://github.com/nicholasadamou/cloudant-backup-service> | *JavaScript, Shell*

This service is designed to back up one or multiple Cloudant databases to a file and uploaded to a Cloud Object Storage (COS) bucket on IBM Cloud.

**cloudant-restore-service** | <https://github.com/nicholasadamou/cloudant-restore-service> | *JavaScript, Shell*

This service is designed to restore one or multiple Cloudant databases from a Cloud Object Storage (COS) bucket on IBM Cloud.

**vineyard-vines-sales** | <https://github.com/nicholasadamou/vineyard-vines-sales> | *JavaScript, HTML, CSS, SCSS*

A web app that fetches and displays the latest Vineyard Vines sales.

**down-to-network** | <https://github.com/nicholasadamou/down-to-network> | *JavaScript*

Down to Network is a dynamic web / mobile app optimized to connect new fellow IBMers to experienced IBMers through the power of matching.

**krios-github-bot** | <https://github.com/nicholasadamou/krios-github-bot> | *Python*

A pal that keeps your dependencies up-to-date.

**multipartfile-uploader-demo** | <https://github.com/nicholasadamou/multipartfile-uploader-demo> | *TypeScript, Java*

A 3-piece setup used to demonstrate the use of ultra-fast Multipart File uploading.

**stockmine** | <https://github.com/nicholasadamou/stockmine> | *Python*

Crowd-sourced stock analyzer and stock predictor using Google Natural Language API, Twitter, and Wikidata Query Service in order to determine how much, if at all, can emotions affect a stock price?

**humblescrafer** | <https://github.com/nicholasadamou/humblescrafer> | *Python*

A small script to retrieve Name, Price/Sale, and Time information from Humble Bundle store links for use in robots or web-hooks. Uses Selenium.

**clion-gateway** | <https://github.com/nicholasadamou/clion-gateway> | *Shell, Dockerfile, CMake, C++*

A portal to CLion using JetBrains Gateway and Docker.