

Saad Rasheed

SOFTWARE ENGINEER

Chicago, IL USA

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Summary

As a Software Engineer at Indeed, my focus revolves around developing customer-facing full stack applications at scale. Currently, I'm deeply engaged with React, Java, and NodeJS, relishing the challenges they bring. Passionate about continuous improvement, I thrive on building, tinkering, and enhancing systems. My background includes hands-on experience in automation, embedded systems and cloud development.

Work Experience

Indeed

Indeed.com Company Pages

SOFTWARE ENGINEER II

May 2022 - Present

- Designed and implemented customer-facing solutions, including Agency Agreement workflows, Company Pages updates, and backend solutions utilizing microservices written in Java, Typescript and Kotlin.
- Engineered high-traffic distributed systems handling **millions** of concurrent **requests per minute**.
- Migrated legacy Jenkins infrastructure to serverless GitHub Actions, reducing build times from **25 minutes to 5 minutes** and enabling concurrent automated workflows.
- Integrated Cloudflare Turnstile to a backend endpoint, reducing **90% of traffic** consisting of all automated bot requests for Company Pages reporting endpoint.

Accenture

Industry X

SENIOR SOFTWARE ENGINEER

Apr 2021 - May 2022

- Utilized Node.js, React, and Java to craft RESTful APIs, customer-centric frontends, and robust distributed systems.
- Built automated fault tolerant tooling for SFRA deployments and developed HIPAA compliant full-stack applications.
- Scaled out a Smart City data ingestion pipeline in Kubernetes supporting **2,000 datasets, 67,000 data queries, 220,000 downloads and 209 visualizations**.

Motorola Solutions

Secure Products Group

SOFTWARE ENGINEER II

Jan 2018 - Apr 2021

- Developed encryption software and security related features for the Motorola's next generation radio, **APX Next**.
- Architected and developed an automation pipeline for embedded devices, enabling automated QA, deployments and testing for more than **10 projects** with over **50 deliverables**.

SOFTWARE ENGINEER I

- Developed a security feature for the Motorola GRV Comparator using TCP/UDP protocols in C.
- Architected and built automated infrastructure and tooling for embedded devices integrating Azure Gov Cloud & Azure Key Vault

Education

University of Illinois Urbana-Champaign

Urbana-Champaign, Illinois

M.S IN COMPUTER SCIENCE

2019 - 2022

- Relevant Courses: Distributed Systems (Cloud Computing), Parallel Programming, Theory and Practice of Data Cleaning, Text Information Systems, Foundations of Data Curation, Programming Languages & Compilers, Applied Machine Learning & Deep Learning for Healthcare.

Northern Illinois University

Dekalb, Illinois

B.S IN COMPUTER SCIENCE

2015 - 2017

- Relevant Courses: Data Structures, Algorithms, UNIX, Networking, Databases, iOS Mobile Programming, Assembler Mainframe, Java, Operating Systems, Computer Architecture and Systems

Skills

</> **Languages:** Typescript, Javascript, Java, C, C++, Python, Swift, SQL, Haskell, Solidity, HTML, CSS, Bash

🔧 **Tools:** NodeJS, Git, Docker, GDB, Spring Boot, React, React Native, MongoDB, Electron, ARM debugger, npm, Clearcase, Jenkins, Github Actions, Gitlab CI, Docker, Kubernetes, Helm, Terraform, Artifactory, Conan, PlatformIO, MicroPython, Jupyter, AWS, CMake, EKS, EC2, PostgreSQL, PrestoDB, NextJS, Vite, Vue, GraphQL, Typescript, Apollo, gRPC, Mocha, Cypress, Storybook and SFRA

⚙️ **Embedded:** Arduino, PlatformIO, ESP32, GPIO, USB, Serial, RS232, and SPI Interfaces

🔒 **Security:** Experience working with encryption algorithms, CIS20 Controls and OWASP Top 10

🌟 **Certifications:** AWS Certified Developer - Associate (2024 - 2027)

Projects

ESP32 Phillips Hue Controller

Hue Controller

ESP32-2432S028R

March. 2024

- Built a hue controller for my smart lights using a off the shelf ESP32 touch screen.
- Implemented LVGL to create a colorwheel to select hue, saturation and brightness and templated scenes from the touch screen.

Strategy Backtesting Bot

Python

PYTHON FINANCIAL SYSTEM

August. 2023-Present

- Built a Python trading bot that would backtrack and run applications to predict buy, hold and sell positions.
- Using Github actions, my trading system regularly refreshes pricing data with yfinance and backtests strategies such as DCF, Ben Graham's Formula, Linear Regression, Neural Net, RSI and MA delta

Chicago Photo Portfolio

photography.saadrasheed.com

PHOTOGRAPHY

Jan. 2022 - Present

- Several of my photos of Chicago are hosted on NextJS served with Cloudinary for quick rendering of large images.
- Built using NextJS with a self adjusting layout to support both vertical and horizontal photos.

Clear Head

clrhead.com

FULL STACK APPLICATION

Jan. 2022 - Aug. 2024

- Building a full stack application that centralizes your day to day allowing you to have a clear head.
- Features a document editor, document file browser, kanban board, diagram editor, canvas image editor and more.
- Leveraging technologies such as NextJS, TypeScript, Express, Apollo, GraphQL, Prisma, and PostgreSQL.

SFCC-CI DevOps Fork

SFCC-CI

OPEN SOURCE DEVELOPMENT

Jan. 2022 - Feb. 2022

- Forked an established Salesforce CI tool to make changes to support DevOps work on a client project.
- Modified SFCC-CI to allow for data package uploads through the CLI.
- Successfully integrated forked version of the tool with production changes which continues to be used after my departure.

Motorola YPG SCH

Motorola Solutions

SOCIAL BRANCH LEAD

Jan. 2020 - Apr 2021

- Innovated event strategies, transitioning seamlessly to virtual formats during the pandemic.
- Successfully coordinated large-scale, in-person social gatherings, accommodating up to 500 attendees.

Causal Data Mining

CS410: Text Information Systems

ITERATIVE TOPIC MODELING WITH TIME SERIES FEEDBACK

October 2020

- Worked with a team to develop a system in Python to analyze historical data and build graphical associations with historical events.
- The project and code is an open-sourced research project available for viewing.

Google Extension

Google Chrome Store

MINIMALIST

Feb. 2019 - Jan. 2024

- Developed and maintain a minimal note taking application for Google Chrome.
- Available for download in the Google Chrome Store.

ACM WCS Mentorship Program

University of Illinois at UC

MENTOR

May. 2020

- Mentored an Ungraduate Computer Science student.
- Met virtually on a regular cadence to help matriculation during the COVID 19 Pandemic.

Motorola Hackathon

Schaumburg, Illinois

TECHNICAL ENABLEMENT LEAD

Jan. 2019 - Apr. 2019

- Led a team to setup required technical infrastructure for hackathon, hosting approximately 100 participants.
- Team enabled participants to use GitLab, GitHub, and cloud instances alongside proprietary Motorola hardware.

iOS Application

Northern Illinois University

UNIBOARD

Dec. 2016 - Feb. 2018

- Developed a social media iOS application in Swift 3 that allowed university students to sign up and communicate publicly through posts and images.
- Used Firebase for the back-end and data store to allow users to comment and like other user's posts.

Portfolio Website

saadrasheed.com

DEVELOPER

Dec. 2016 - Feb. 2018

- Redesigned in 2024 with NextJS and ThreeJS serving links about me and binary art.
- Created a website hosted on Github Pages and using HTML/CSS/JS for the frontend.
- Used to display my portfolio, work experience, contact details and a downloadable resume pdf.