Vivek Ranjan

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My passion is building software products that solve meaningful problems and enhance people's lives. I enjoy constantly exploring ways to level up my team, streamline the organization's software development process, and optimize our systems for efficiency and effectiveness.

SKILLS

FRONTEND	HTML/CSS, JavaScript, React, Vue
BACKEND	Java, Spring (Boot, MVC, JPA, Data, Data REST, MVC), SQL (MS SQL Server, Postgres, MySQL, AWS Redshift), Python, NodeJS
OTHER	Shell scripting, Docker, AWS services like IAM, ECS, ECR, Fargate, ElasticBeanstalk, Cloudformation, CDK, S3, Lambda

EXPERIENCE

Renaissance Learning

Staff Software Engineer   Feb 2022 - Present

- Proposed and led a project that reduced costs by 73% while removing security and operational overhead by moving batch processing jobs from manually managed servers to AWS Fargate.
- Increased deployment frequency of these jobs by 40% by building a framework that allows developers across the organization to quickly and consistently configure deployments of these jobs with IaC in Python using AWS CDK and Docker.
- This framework also improved the observability of the batch jobs by automatically configuring them with Datadog and Cronitor. I built a custom CDK module to allow the setup of Cronitor monitors as part of deployments.

Illuminate Education

Lead Software Engineer   Jun 2019 - Feb 2022

- Proposed and led a cross-functional effort to 2x our deployment frequency and remove ~10 hours/week of manual work by automating our monolith application's deployment and introducing end-to-end testing in our pipelines. Used Docker, YAML, shell scripts, AWS CLI and Cloudformation.
- Proposed and led a project to remove the dependency of 4 weeks per year of engineering time to release content created by our User Training department. Achieved this by building a content management system using AWS Aurora serverless (Postgres), AWS Lambda, AWS API Gateway, Vue, Vuex, and Jest.
- Led a project to implement the UX redesign of crucial functionality that helps educators monitor the progress of millions of students by rewriting the frontend (Vue, Vuex, Jest) and rewriting parts of the backend (Java, Spring, REST, Hibernate, MS SQL Server, Groovy/Spock).

FastBridge Learning

Technical Team lead / Senior Software Engineer   Mar 2017 - Jun 2019

- Led project to deliver a web application that provides easy access to millions of data points that help educators understand the performance of all students in a mid-western state.

- Worked with the team to build a datawarehouse in AWS Redshift, a microservice serving REST APIs using Spring Boot and JS-based frontend to render the data as user-friendly reports.
- Helped rewrite our software to take advantage of a more distributed system so that we can scale and serve our growing customer base.

FastBridge Learning

Software Engineer   Jun 2015 - Mar 2017

- 4th engineer at an early-stage EdTech startup (~10 employees). Helped educators understand the needs of millions of students in reading and math by building software across the entire stack for our web application.
- Backend - Spring (Boot, JPA, Data, Data REST, MVC), JPA/Hibernate, Microsoft SQL Server along with AWS Redshift and other AWS technologies.
- Frontend - HTML/CSS, Bootstrap and JavaScript (ES6, webpack, babel and jQuery).

University of Minnesota

Full Stack Software Engineer (Part-time)   Jan 2014 - May 2015

- Using Java (Spring MVC) with HTML/CSS/JS, jQuery, and Microsoft SQL server, I added features to an existing web app to assess the reading abilities of 1000s of students and track their progress

Unique Identification Authority of India (Aadhaar)

Software Engineer (Intern)   Dec 2011 - Jun 2012

- Decreased runtime by ~76% of de-duplication program (from ~25 hours to ~6 hours).
- Built tools to make the intake of millions of residents into the Indian government's universal identification program (Aadhaar) more efficient and accurate.

EDUCATION

University of Minnesota	**University of Mumbai**
Aug 2013 - Dec 2016	Jul 2008 - May 2013
Master - Computer Science	Bachelor - Information Technology

VOLUNTEERING

Astoria Digital

Community Engineer   Mar 2020 - Aug 2020

- Helped build an open-source volunteer coordination and dispatch system in use by Astoria Mutual Aid Network - https://github.com/astoria-tech/volunteer-dispatch
- Built a system that helps community organizers keep track of waiting times at COVID testing sites in NYC - https://github.com/astoria-tech/nyc-covid19-testing-wait-times