

# Dinika Saxena

Full Stack Software Engineer

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## PROFESSIONAL STATEMENT

I am a software engineer specialized in **web-development**. I like to work in autonomous teams and engage in all stacks of feature development - from gathering their requirements and planning, to shipping and monitoring them in production. I deeply value **automated testing** and principles of **continuous integration and delivery** and I love to work on improving systems around them in engineering teams.

## WORK EXPERIENCE

April-2023 Present	<b>Blue Brain Project - Geneva, Switzerland</b> Developing <u>web applications</u> for the blue brain project. <ul style="list-style-type: none"><li>• Developed a feature that allows neuroscientists to easily find discrepancies in large datasets (&gt; 100k) using ElasticSearch &amp; React.</li><li>• Wrote a bash (nautilus) script to convert demo videos from webm to mp4 format so they can be played on mac devices.</li><li>• Designed a prototype that creates test environments on demand for each pull request using Kubernetes, Github, and Gitlab.</li><li>• Developed a tool to allow scientists to bulk download experiment data</li><li>• Enabled end-to-end testing in the project by fixing issues that had prevented the team from running tests in CI for more than 2 months.</li></ul> <p><b>Technologies:</b> React, Redux, Jotai, NextJS, SSR, Cypress, Jest, GitHub actions, Elasticsearch, Kibana, Kubernetes, Docker, FastAPI, and Scala.</p>	Software Engineer
Oct-2020 March 2023	<b>CERN - Geneva, Switzerland</b> Developed applications that are used in the monitoring and control of the <u>LHC</u> in the Beams Department. Some examples of my work are: <ul style="list-style-type: none"><li>• <b>Improved performance</b> of a Vue application during situations of alarm avalanches at CERN. With the improvements, the app was able to process and render more than <b>100k alarms in ~35 seconds</b> compared to 10k alarms in ~6 hours. Memory usage improved by 81%.</li><li>• Setup and helped standardize CI and CD systems for several applications using Jenkins and Ansible.</li><li>• Worked as <b>Technical Lead</b> in a team of 4 developers for migration of legacy application to newer stack of Angular and Java.</li><li>• Guided the team towards writing more automated tests and setup infrastructure for <b>e2e testing</b> in local and CI/CD environments.</li></ul> <p><b>Technologies:</b> Vue, Angular, TypeScript, Java, Spring, SQL, Cypress, Karma, Jasmine, JUnit, Gradle, Jenkins, Gitlab CI, Ansible, and Docker.</p>	Software Engineer (Fellow)
May-2019 July-2020	<b>Minna Technologies - Gothenburg, Sweden</b> <ul style="list-style-type: none"><li>• Lead engineer in the design, <b>development, and documentation of RESTful API</b> services (named “insights”) that allow consumers to show changes in the end-user’s subscription economy.</li><li>• Made <b>debugging of bugs easier</b> by exporting anonymized user data to internal admin tools, and enriching sentry logs with redux state snapshot.</li></ul> <p><b>Technologies:</b> React, Redux, TypeScript, Scala, Akka, Cypress, Jest, MongoDB, Kibana, Sentry, Google Optimize, Mixpanel, and Scrum</p>	Software Engineer

Sept-2017	<b>CERN - Geneva, Switzerland</b>	Technical Student
Oct-2018	<ul style="list-style-type: none"> <li>Migrated the front-end architecture of Inspire from Angular to React, making it responsive and increasing the test coverage by 67%.</li> <li>Developed a dashboard to help fix errors that occurred while synchronizing data between the legacy system and the new application.</li> <li>Conducted user testing and created mockups using Figma to improve UX based on the user feedback.</li> </ul> <p><b>Technologies:</b> React, Redux, Jest, Puppeteer, Django, Figma, Scrum</p>	
June-2016	<b>CERN - Geneva, Switzerland</b>	Openlab Summer Student
Aug-2016	<ul style="list-style-type: none"> <li>Developed a dashboard that used data visualization to represent the architecture of OpenStack cloud resources at CERN</li> </ul> <p><b>Technologies:</b> D3.JS, Dimple, SVG, JavaScript, HTML, CSS</p>	

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## CONTRIBUTIONS TO OPEN SOURCE PROJECTS

- Contributed to ansible playbooks that automate configuration of 3 raspberry pi servers on a rack. ☕
  - As a contributor to the [Microsquid project](#) I am working on developing games using Aframe for VR and MQTT. ☕
  - Extended feature of an Angular datepicker component to select the highlighted date when user blurs the datepicker. ☕
  - Added a feature to undo steps in a game. ☕
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## PERSONAL PROJECTS

- Migrated CI/CD pipelines of an application from Jenkins to Gitlab CI.
  - Developing an application that automates tracking of expenses (using the TransferWise API) and splits the costs among users. ☕
  - Developing a desktop application to make simple modifications to screenshots taken by gnome's default tools. ☕
  - Developed a browser extension that implements a 'flash-cards' like utility by showing users saved notes when they open new tabs. ☕
  - Used GraphQL to design API for performing CRUD operations on blog posts. Also used node, express, mongo, mongoose, & socketio. ☕
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## EDUCATION

- B.Tech in CS from University of Delhi (2013-2017) Received an aggregate of 93% and an award for 3rd highest GPA in the university
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## SKILLS

Advanced	Intermediate	Beginner
JavaScript & TypeScript	NextJS	GraphQL
Java & Spring	Scala	Akka
Git	Ansible	D3.JS
Web Components	MongoDB	Google Cloud Platform
React, Angular, Vue	Bash	Elasticsearch
Redux	Docker	Kubernetes
CSS & HTML	Spring	Python
RxJS	Sentry, Kibana, Grafana	Django & FastAPI
SQL & Postgres	Jest & Enzyme	
Jest, Jasmine & Karma	Gradle	
Cypress	Jenkins	
Messaging (WS & STOMP)	Figma	
Gitlab & Github CI	AFrame	
SCRUM & Kanban		