Dinika Saxena

*A former software engineering intern at CERN, I specialize in front-end engineering. I am highly focused on **developing high performance web applications** from the ground up using sound engineering principles, as can be proven from my work experiences and projects.*

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Work Experience

Front-End Engineer @ CERN, Switzerland **(Sept 2017 - Oct 2018)**

Technologies used - React, Redux, Angular, TypeScript, ImmutableJS, Jest, Enzyme, Puppeteer, Jasmine, Python, SCSS, Git, Docker, Agile methodology

- Migrated the front-end architecture of Inspire, an open access repository for the High Energy Physics community, from Angular to React
- **Reduced complexity** of the system by designing RESTful APIs that send normalized data which requires minimum additional processing on the front-end side
- Designed mock-ups and conducted user tests to make sure that the development road-map of the new application is properly aligned with the user requirements

Link to case-study - https://dinika.github.io/portfolio/inspire.html

Android App Developer @ DU Innovation Desk, India **(Nov 2015 - Nov 2016)**

Technologies Used - Java and Python

- Led an inter-disciplinary team to develop an android application, Health Buddy, aimed at tracking and improving nutrient intake of users
- Conducted statistical analysis (using Python) to check & increase its efficiency

Software Engineer Intern @ CERN, Switzerland **(June - Aug 2016)**

Technologies Used - D3.JS, Dimple, SVG, JavaScript, HTML, CSS, BootStrap

- Designed a visualization for the OpenStack cloud infrastructure at CERN using D3.JS
- Developed a dashboard for the cloud engineers that uses the visualization to **reduce the cognitive load** required to quickly detect and fix faulty VMs
- Awarded 2nd prize for best project presentation at CERN Lightning talks 2016

Link to case-study - https://dinika.github.io/portfolio/cern-dashboard.html

UI/UX Developer @ Binary Dots, India **(June 2014 - July 2015)**

Technologies Used - Adobe Creative Suite, BootStrap, HTML, CSS

- Designed in-house and client (responsive) websites, billboard ads, and brochures
- Awarded employee of the month thrice for my work in **solidifying brand direction**

Relevant Projects

- **Improved performance of a website by 216%** on desktops and 232% on mobile devices by optimizing the Critical Rendering Path — Link to case-study
- Demonstrated security and performance benefits of HTTP2 over HTTP/1.1 by simulating attacks on vulnerabilities of several websites (such as eBay, NASA)
- Developed a full-stack web application using React, Redux, Webpack and Firebase that allows authorized users to build and buy customized burgers — GitHub Repository
- Contributed to **Mozilla's new web browser, Servo** by submitting JS demos for performance auditing and reporting build issues on Linux and Windows
- Participated in **JS Hackathon 2018** at CERN and built an application using Angular that calls CERN's API and allows users to search and play videos — GitHub Repository
- Developed an application that uses AJAX to call the Google Street View, NY Times, and the MediaWiki APIs to display information on a chosen city — GitHub Repository
- Creating a series of web experiments on domains ranging from web animations to data visualization on Codepen; — Codepen Profile
- Built a private cloud for the college using RDO (OpenStack) on CentOS 6

Skills

JavaScript (ES6)
CSS
HTML
SASS/SCSS
BootStrap
React
Redux
Enzyme
Jest
Jasmine
Puppeteer
TypeScript
Firebase
ImmutableJS
Webpack
Python
Git
PageSpeed
Typography

Education

B.Tech in CS
University of Delhi (2013-17)
93.3%
Awarded excellence prize for obtaining 3rd highest scores in college

Achievements

- Grace Hopper Scholarship awarded by the Anita Borg Institute (Dec 2015)
- CSSS Scholarship awarded by the Central Indian Govt. for exemplary performance to cover graduation from 2013 to 2017
- Successfully completed the Hacktoberfest 2016, 2017
- 1st prize in Best Paper Presentation for paper on 'Quantum Key Distribution' presented at NCAECA 2016