# **Abhishek Kumar**

Full stack developer

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### WORK EXPERIENCE

**Software Engineer, Deloitte USI-** Jan/2016 - present - Bengaluru, KA

- → Actively involved in the development of analytical tools, libraries and applications.
- → Exposure to JavaScript, AngularJS, Python, Java and Spark

Summer Intern, KLA-Tencor - June 08, 2015 - July 24, 2015 - Chennai, TN

→ As a part of the Surfscan SPx team, developed a image viewer for viewing semiconductor wafer scan data.

### TECHNICAL SKILLS

**Strengths:** JavaScript ES6+, C++, Algorithms, Problem Solving

**Skilled:** AngularJS, Python, Java, SQL, Apache Spark, C3.js, Gruntjs, Bower, Node.js, Web Components, Bootstrap, HTML, CSS, Microservices, DCOS, Jenkins, RESTful web services, IntelliJ IDE, VS Code, Git, Jira

# **PROJECTS**

**Inveritas:** It is designed to give rapid insight into exactly what inventory is needed, why it is needed, and how to make improvements.

- → Developed the UI using AngularJS, Grunt and Bower
- → Integrated Keycloak dynamically with the help of a Spring Boot app.
- → Implemented the formulas as Spark SQL queries; optimized them to meet the performance benchmarks
- → Packaging the build as a Docker Image using a Maven job.

**PyDAAP library:** This python library is created for enabling the data scientists to utilise Spark backend to curate and drive insights out of data. The library is intended to be used mainly with Jupyter Notebook, but it does support Python CLI as well.

- → Designed the library packages and modules.
- → Impleted APIs to apply data transformations using simple methods in the library.
- → Integrated Keycloak and ensured the access token was refreshed before being passed onto any API call.
- → Derived a packaging strategy using setuptools and twine.
- → Configured Jenkins to build the package inside a Docker container.

**Visualisation Library:** A library for quickly creating charts using C3.js, D3.js and Highcharts. It is also responsible for dynamically generating Spark SQL and fetching data from backend.

- → Implemented multiple charts in the library using C3.js, D3.js
- → Created reusable UI components, which were used by the consuming applications.
- → Added support of inner queries in the SQL generator

**Deloitte Developer Studio:** It is designer interface for leveraging the benefits of backend and UI libraries to create charts, dashboards, perform data transformations and publish them as an application.

- → Developed a drag & drop UI which uses topological sort for sequencing and applying Spark transformations on data.
- → Implemented the caching strategy using Spring Boot backend and grunt.js for UI assets.

**Image control:** This managed image control was created to visualise semiconductor wafer inspection data, to find/view defects in the wafer. The input data was a matrix of floating point numbers and it visualised by mapping numbers to color map based on value.

- → Wrote the logic for converting the matrix to a bitmap image.
- → Implemented the zoom and pan along with a peek window using the C# Bitmap objects.
- → Added functionality for projecting data across a line using the Bresenham's line algorithm.
- → Added option to save any state of the image control as an image.

# SIDE PROJECTS

**BuzzApp:** A slack-like chat app for chatting and sharing images with other users and groups. The app was built using Vanilla JavaScript ES6, native web components, Web Sockets API, Node.js and parcel-bundler.

**Moon-man:** A challenging 2D infinite runner, developed using LibGDX, Java and Android Toolkit and released on the Google Play Store. The game has various features such as upgrades, power-ups and coin collections.

# EDUCATION

2016 MCA, National Institute of Technology, Calicut 2013 BCA, Birla Institute of Technology, Mesra

# ACHIEVEMENTS

- → Gold medal for securing highest marks in MCA at NIT, Calicut
- → Applause Award for 'Consistently exceeding expectations' at Deloitte USI