

# Srujan Gopu

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## EXECUTIVE SUMMARY

I'm a full stack developer with 8 years of experience developing web and mobile applications. I have a strong knowledge of Angular, React, Java, JavaScript and Cloud Services (AWS). I first started coding in Java when I was 18 and since then my passion towards computer science has only increased. Formerly taught computer science to students while also going to school. Authored a book, "Deal with DS", during my sophomore year of college. I extensively read about new developments in technologies, and publish my research to my online course website, mlcrunch.com which I launched in 2019.

## RELEVANT SKILLS

Frontend	ES6, Angular, React, Jasmine, Node, Typescript, Protractor
Backend	Java 8, Spring, Hibernate, Maven, JUnit, JSP, Scala, Play, Python, Rest
Cloud	AWS Certified, Jenkins, Docker, Kubernetes, GCP (Firebase)
UI	HTML5, CSS3, LESS, jQuery, Bootstrap, AJAX
Machine Learning	OpenCV, NumPy, Pandas, scikit-learn, Keras and Deep Learning
Database/Cache	MongoDB, DynamoDB, SQL, Redis, GraphDB

## RELEVANT WORK EXPERIENCE

### Asurion - Software Engineer III

Nov 2016 - Present

- Reorganized the manual customer verification flow to digital by reading documents with computer vision. Made use of OpenCV, AWS Reko, Lambda and API-gateway, reducing the wait time for the customers from 3 hours to 6 seconds without any manual verification.
- Created a private NPM JavaScript library to detect problems with image quality such as glare, not enough brightness, etc. by using OpenCV. This library helped customers to assess images they captured and gave them autonomy to retake if the captured image was of poor quality. The library was written in C++ and was exported as a web assembly file to run up to 4x faster than asm.js on the browser.
- Developed a digital form and document sign element using React framework. In the customer experience, the process is akin to filling out a form on paper and e-sign using their finger on mobile, which creates an image that the user submits. This experience relieved the customers from the hassle of printing the form as well as alleviating the need to fill out, sign, scan, and upload the form. After this feature went live, the average time users spent on the website decreased dramatically from 3 days to just 10 minutes.

- Integrated webcam component to capture documents allowing the customers who had lost their phones the accessibility to use laptops to make insurance claims. Working on webcam integration using react webcam library supporting all browsers and different regulations was an enlightening experience and my understanding of react framework features such as state and react store made my progress seamless. Integration of webcam reduced 12% of the customer's calling rate.
- Connected database with powerbi to find out main reasons of customers leaving the website and calling agents. It helped us to get a better understanding of where to improve the web experience. After improvements and bug fixes on the website, customers drop out rate from the web reduced by 60%.
- Developed a PDF417 scanner using JavaScript to scan customer details from the PDF417 code located on the back of the customer's driver's license. This PDF417 scanner library will quickly verify user details on the browser without making any backend server calls. It helped the customers to reduce manual errors by 95% and their claim waiting time decreased from 3days to 6seconds.
- Took ownership of developing an internal web application called Fraud Analytics using Node, React, and Oracle to cancel fraud claims. Fraud Analytics application runs multiple SQL queries on a schedule to catch fraud customers and cancel their claims. It helps us to monitor fraud 24/7 and save around \$500 Million per year.
- Currently working on the development of a graph database visualization application using React, Neo4j, and ReGraph library from Cambridge Intelligence. It will visualize fraud customers using the same details like Address, Ip Address, mobile number, and user details.

**Union Bank of Switzerland (UBS) - Software Engineer**

**June 2015 – Nov 2016**

- Converted outdated COBOL code into java 1.8 and Scala for the company's economic benefit, reducing UBS's costs while running applications. Expanded knowledge regarding Scala, JDK 1.8, and map and reduce for seamless conversion into new platforms.
- Created a COBOL to Scala transpiler, increasing colleague productivity helping them to complete sprint work several days before the deadline.
- Integrated the Scala application with Kafka queue and Redis cache to process millions of transactions faster and securely. Combining the application with kafka transmitted any volume of data reliably and redis cache speeded up the processing.
- Created a portfolio to track the results of programs converted and how efficiently they performed; the application was developed with HTML5 and AngularJS.

**Sears Holding Corp - Software Engineer**

**July 2013 – June 2015**

- Migrated the mobile web application from HTML to AngularJS, helping to organize the code into modules, making them easier to maintain and recognize further improvement possibilities.

- Lead the incorporation of testing tools such as Jasmine, Chai, Mocha and protractor for unit testing and test automation.
- Created test scenarios on JUnit for API testing. The tests removed cumbersome manual work, allowing API testing within seconds. This tool was helpful for internal developers to quickly test and trace bugs from API.
- Created private Java libraries for selenium automation; the jars were later implemented company-wide for other teams to utilize. Moving all core functionalities into a separate library helped test engineers easily write automation test cases.

## **RELEVANT PROJECT EXPERIENCE**

### **MLcrunch.com - Founder**

**2019**

- Ever since I encountered machine learning and applied it to future computer visions, I increased my personal studies to learn more about artificial intelligence, fueling a deep passion for the field. I have dedicated personal free time to learn about ML models, algorithms, and OpenCV procedures from different blogs, books, and conferences.
- I successfully executed and launched my own website, [MLcrunch.com](http://MLcrunch.com), to share my accumulated knowledge of machine learning, OpenCV, and Libraries used for machine learning with other developers and interested persons.
- I am currently creating more courses on machine learning to add to my website to help developers who are new to the artificial intelligence field.

### **Misc. Mobile App Creator**

**2013 - 2018**

- Working on Sears mobile web inspired me to create my own mobile apps. I created a small dictionary mobile app called "[words swipe](#)" using angular and I deployed it on Heroku cloud. It is a teaching app with a single API call from Urban Dictionary and displays like a flash card to familiarize the user with local slang; the user can swipe left to ignore and right to save.
- Created a social networking-esque app called "[Myna](#)" where users can text and comment a post anonymously within a certain radius. It gave me an opportunity to learn about docker, AWS cloud, and angular iconic framework.
- In 2016, I created a mobile app titled "[Newsbook](#)" using react native, AWS lambda and Redis cache. It is an application using two services, Google News API and Giphy API, allowing users to read current news stories and comment using a GIF.

**Thesis and Research paper****2011 - 2013**

Published thesis titled, “Experimental Studies of Android APP Development for Smart Chess Board System.” The thesis was written in conjunction with the development of a unique Android app designed to track a live game of chess on a smart 3-D chess board, allowing users to save the data of their chess games. This smart chess board identified signals, and sent the signals to the users’ phones. The app also mapped the movements of the chess pieces, capturing the data into the app. The recorded signals and movements were used as input for game analysis. In this thesis, I have learned design and implementation of a server for playing and reviewing an online game.

**EDUCATION**

Western Kentucky University

Master of Science in Computer Science

**2011 – 2013**

Jawaharlal Nehru Technological University

Bachelor of Science in Computer Science

**2007 – 2011**