

# Shoban Kumar Rajamani Vimalarani

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A self - driven passionate programmer seeking full time opportunities in SWE / Data Science with 4+ years of software development experience specializing in full stack development and NLP

## EDUCATION

<b>Master of Science in Computer Science</b> , Purdue University	Expected - Dec 2020
Statistical Machine Learning, Data Mining, Deep Learning, Algorithm, Cloud Computing, Linear Algebra	GPA: 3.51/ 4.0
<b>Bachelor of Technology in Information Technology</b> , Anna University, MIT Campus	May 2015
Data Structures, Analysis of Algorithm, Object Oriented Programming, Web Technology	GPA: 8.91/ 10.0

## WORK EXPERIENCE

<b>Technical Intern   Yahoo!</b> - Verizon Media, Traffic Protection Team, Champaign	Jun – Aug 2020
<ul style="list-style-type: none"><li>• Worked as a backend developer to design and develop a framework for the automatic report summary generation</li><li>• Reduced the manual effort of the business analysts by more than 30% during report investigation and analysis</li><li>• Generated new automated insights and reports using Augmented Analytics - Machine Learning and Natural Language Processing</li></ul>	
<b>Graduate Research Assistant</b> , HPC and Machine Learning   Purdue University	May 2019 – Present
<ul style="list-style-type: none"><li>• Worked on a Machine Learning Algorithm using Classification Tree Analysis for estimating propensity scores between the 5 pairs of species and improved the mapping between them by 50%</li><li>• The above work is awarded with funding from United States Department of Energy for continued research</li><li>• Researched and developed statistics and heuristics for large scale high dimensional data to enable parallelism in the data pipeline by reducing the runtime of data processing by more than 40%</li></ul>	
<b>Software Developer   SAP Labs</b> , Bengaluru	Jul 2015 – Jan 2019
<ul style="list-style-type: none"><li>• Worked as a backend software developer for orchestrating the Document Processing Pipeline from multiple external sources</li><li>• Collaborated with two to develop micro services for finding faults, improved logging capabilities and enabled parallel processing of billions of large-scale data before reaching to Data warehouse which reduced the run time by a massive 30-40%</li><li>• Conceptualized and built Workbench Dashboard which simplifies the ingestion of the unstructured data from the external systems, easier assignment of the pipelines and helps in better visualization of the meaningful insights extracted. This improved the productivity by more than 50% and helped as a debugging tool for complex workflows</li><li>• Worked on Natural Language Processing pipelines to improve the text classification and helped in predictive analysis of the documents. Follow up of this work was creating a Text Annotation Highlight Tool for text curation and Machine Translated search results for 1000000+ documents of different formats in English, French and German</li></ul>	
<b>Graduate Teaching Assistant</b> , Programming in C   PURDUE University	Jun – Aug 2019
<ul style="list-style-type: none"><li>• Graded exams for about 60 students and consistently delivered one-to-one assistance during lab sessions and office hours.</li><li>• Consistently provided feedback on assignments for improvement of students</li></ul>	

## TECHNICAL SKILLS

Programming Languages	: Java, Python, JavaScript, C++, C#
Web Development	: JavaScript, CSS, HTML
Databases	: Relational, Non-Relational, SAP HANA
Tools	: Git, Maven, Swagger, Kafka, Docker, JIRA, AWS
Python Libraries	: Scikit learn, SciPy, Pandas, NumPy, Pytorch
Frameworks	: Node.js, jQuery, Ember.js, MVC, ASP.NET

## PROJECTS

**Building Chatbots** A hybrid approach using generative and retrieval-based approach to generate automated response to the questions using Chatbots. The challenging part was to generating response to the text which was handled efficiently using combination of Bag of Words, TF-IDF Vectorization / Cosine Transformations.

**Fake News Detection and Analysis** A Natural Language Processing way of the detecting fake news from sentiment analysis using LSTM and RNN models to capture and measure various factors affecting fake news from news and social media articles formulated using weight based novel techniques.

**Image Classification using ResNet** A micro service-based framework which allows the users to upload millions of images to the database and effectively classify them using ResNet. This project is completely implemented using latest technologies - serverless architecture, API gateway, OAuth2 authentication and authorization.