

# Karthik Balasubramanian

## Summary

- A passionate Data enthusiast with experience in handling critical Data integration, Software engineering and product development projects.
- I am trained in developing intelligent data products using the right Machine learning algorithms with a scalable technology suite given the dataset. In addition, I can also reason the anomalous behavior of algorithms when expected does not happen.
- Result oriented, self-driven team player with abilities to handle multiple assignments at a time.

## Education

**Masters in Information Systems Management, Heinz College, Carnegie Mellon University May 2017**

**Relevant coursework:** Machine Learning (ML), Practical data science, Research in data science, Data structures, Math for ML, Digital transformation, Distributed systems, Mobile app development and Database Management.

**MOOC:** Deep learning for coders by FastAI, Introduction to Apache Spark by Edx, Python by Edx.

**Bachelors in Information Technology, SRM University, Chennai April 2013**

## Skills

### Technical Skills

Scripting and querying Languages: Python, Java/J2ee, C++, JavaScript, HTML, SQL, MongoDB

Tools: MiniTab, Android Studio, Jupyter notebook, Amazon EC2

Frameworks: ReactJs, Spring, Android

Machine learning/ Scientific programming: Numpy, Scipy, Sci-Kit learn, Pandas, Keras, Theano.

### Business Skills

Problem solving, hypothesis definition, use-case design, market research and Business Analysis.

## Academic Projects

**Machine Learning and Deep Learning Tutorials September 2016- Present**

- Tutorials are published on my website as blogs. Each tutorial focuses on multiple aspects of solving a problem right from exploratory data analysis, model selection, parameter tuning, data visualization and result interpretation.

**Airbnb price prediction tool September 2016- December 2016**

- A pure python tool which predicts the price of an Airbnb listing based on its features and locational significance. It also considers competitor pricing and accordingly suggests a price.
- In addition, it provides information like other nearby Airbnb listing price stats and advertisement suggestions.
- Performed cross validation and achieved accuracy score of 70% with limited dataset for the city of Pittsburgh.

**Hilti Quiz-Train August 2015- December 2015**

- Hilti Quiz-Train is a native android application developed for Hilti mobile challenge 2016.
- Developed the backend using Spring Data framework and Synchronous Volley Framework. Responsible for material design philosophy adherence in mobile app.
- Completed second in the competition which saw a participation of over 120 teams around the world.

## Experience

**Data Engineering Intern, SingTel DataSpark Analytics, Singapore Summer 2016**

- Created an Apache Spark Job configurator tool from the scratch in an agile environment to automate the creation of complex ETL job configuration files.
- Exported the tool as a proprietary of DataSpark to its clients with documentation and tutorials.

**Assistant Systems Engineer, Tata Consultancy Services, Chennai June 2013 – May 2015**

- Held accountable for project estimation, use-case design, development, performance testing and rollout activities of a critical data integration project for a US based retailer.
- Actively involved in developing and documenting proof-of-concepts with data transformation and processing frameworks which was later utilized across the client projects as boilerplates.
- Received Technically excellency award for successfully completing three of the eight major releases in the project.