# Srikanth Koduru

**Senior Python Developer**

[srikanthde560@gmail.com](mailto:srikanthde560@gmail.com); (352) 410-4916

# Summary

* 10+ years of software development experience with different technologies across various domains
* Expertise in **Python, Java, R, HTML, XML, CSS and jQuery**
* Knowledgeable with **SQL** and **NoSQL** solutions using **SQL Server**, **Oracle**, **SSRS** and **CouchDB**
* Proficiency in **ETL** using **Informatica and** **SSIS** alongside with orchestration using **Control M**
* Experienced in Apache Spark for implementing advanced procedures using the in-memory computing capabilities written in **Python/PySpark.**
* High proficiency as Senior **data engineer** in designing and implementing customized data solutions using **data management principles, cloud data engineering, data warehouse, data analytics, data visualization,** and **data quality solutions.**
* Skilled in data processing using python libraries such as **Pandas, NumPy,**
* Extensive usage of data visualizations tools such as **Power BI, Tableau, MS Excel** and Python libraries such as **matplotlib** and **seaborn**
* Developed ER diagrams, Class diagrams. Use Case Diagrams, Activity diagrams for Data modeling using **ER/Studio** and **Microsoft Visio**
* Designed complex **SQL** queries, triggers, views and stored procedures in **SQL Server**
* Experience with **AWS S3, RDS** is a plus
* Proficient in software development life cycle, algorithm design and data structures.
* Skilled in utilizing **JIRA, Eclipse, Maven, Bamboo, Jenkins, GitHub, Bitbucket, SVN** and more
* Worked in fast paced environments that utilize **Kanban, Agile methodology** - sprints
* Strong troubleshooting and analysis skills with proven ability to identify, isolate and resolve issues
* Highly motivated, quick learner and team player with good commutation and interpersonal skills.

# Technical Skills

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| **Languages** | Python 3.x/2.7/2.4, SQL, Java, R |
| **Python libraries** | Pandas, NumPy, matplotlib, seaborn, Pyodbc, PySpark |
| **Databases** | MicrosoftSQL Server, CouchDB, Oracle, MS Access |
| **Data Modeling** | ER/Studio, Microsoft Visio |
| **Data Processing and ETL** | SSRS, SSIS, Informatica |
| **Data Orchestration & Scheduling** | Control M, Jenkins |
| **Data Visualization** | PowerBI, Tableau |
| **Web Technologies** | HTML, CSS, XML, JavaScript, JQuery, Bootstrap, JQueryUI |
| **IDE/Development tools** | Jupyter, Eclipse, SQL Server management studio |
| **Build and CI** | Bamboo, Maven |
| **Version Control** | JIRA, GitHub, BitBucket, SVN |

# Experience

Senior Python Developer Aug 2019 - Present

Client: Eli Lilly & Co, Indianapolis, IN

* Work with the team to gather requirements, determine the data needed to generate data visualizations and understand the type of data analysis needed to be done
* Extract, Transform and Load (**ETL**) data from various data sources into **SQL Server** database using **Informatica** and utilize the data for further analysis and data visualization
* Design complex **SQL** queries to incorporate complicated joins and sub queries in **SQL Server** to efficiently save and retrieve the data
* Designed application using **PySpark** to load data in the form of CSV files spread across a distributed system into database tables
* Prepare data for analysis by pre-processing raw data and perform data wrangling using **Python** or **R** on **JupyterHub** to transform the unorganized raw data into organized data sets such as **Pandas data frames**
* Design algorithms and develop **Python** scripts utilizing **Pandas** and **NumPy**, Python data analysis libraries, to perform data transformation and analyze large data sets
* Optimize, test and update existing scripts periodically to incorporate changes in data and new requirements along with improving their efficiency while ensuring accuracy
* Maintain and update tables via **SQL** stored procedures to perform Create, Insert, Delete, Truncate, Update, Drop operations in the **SQL Server** database
* Develop various data visualizations based on requirements to best illustrate the findings of analyzing large data sets via easy to understand videos, plots and graphs that are both captivating and informative in nature
* Build custom plots that include line plots, bar graphs, heatmaps, box plots, scatter plots, histograms and other plots utilizing **Python data visualization** libraries such as **matplotlib, seaborn** and more.
* Document the results of the data analysis in form of CSV files, Excel reports and data visualizations and present the summary of interesting findings such as trends, outliers, patterns and correlations
* Migrate the database from **SQL Server** to **AWS** by loading the database backup into **AWS S3** bucketsandrestore the **S3** buckets to **RDS**.
* Configure the application in **python** to target the **AWS** **RDS** database instance and validate the data analysis results
* Automate, schedule and monitor batch jobs and perform workload automation through **Control-M**
* Using **Bitbucket/Git** as version control and **Bamboo** for automated builds

**Environment:** Python, R, SQL, PySpark, Informatica, Microsoft SQL Server, AWS, Control M, JupyterHub, JIRA, Bitbucket, Bamboo

Python Developer/ Web Developer Nov 2014 - Jul 2019

Client: Eli Lilly & Co, Indianapolis, IN

* Involved in gathering requirements from business, converting them into user stories and breaking them up into trackable tasks
* Extensively utilized **JavaScript**, **HTML 5**, **CSS 3** to design an interactive user interface to draw diagrams depicting the drug research process in the form of shapes, populate each shape and connect them
* Designed comprehensive and interactive web pages using **Bootstrap**, **jQuery**, and **jQueryUI** libraries on **Eclipse** IDE
* Collaborated with development, testing and business teams to develop test cases for integration testing, system testing and user acceptance testing
* Created a web app for visualizing and simulating the research process of new drug development and drug trails for drug research statisticians using **Spring MVC** framework
* Created **Tableau** dashboards to display various plots, graphs and bar charts
* Developed an algorithm using **Java** to convert the user created diagrams into **R code** and simulate the code
* Utilized **CouchDB** to store the diagrams and the generated **R** code in the **JSON** format
* Designed a system to submit grid jobs to the High-performance computing (HPC) grid and monitor progress of the jobs using **Java** and **R** code
* Collaborated with business to develop a **Shiny** app to analyze and visualize the results of completed jobs in the form of tables and graphs
* Enhanced the accuracy of research process by developing a simulation system that predicts the result of the process with 90% accuracy
* Generated reports on weekly, biweekly and monthly basis using **Tableau** to visualize usage data and trends
* Tracked issues, requirements, stories, release schedules with **JIRA** for agile project management
* Manage checkins and version control using **Github**
* Utilized **Maven** for local build and deployment and **Jenkins** to automate the build and troubleshoot according to errors if any and deployed to higher environments

Environment: JavaScript, Java, HTML, CSS, R, jQuery, Eclipse, Bootstrap, jQueryUI, Spring MVC, CouchDB, Shiny, Tableau, Github, Maven, Jenkins, SVN, JIRA

**Python Developer Jan. 2014 - Oct. 2014**

**Client: Indiana Health Information Exchange, Indianapolis, IN**

* Designed Developed tools using **Python, XML** to automate some of the menial tasks. Interfacing with supervisors, artists, systems administrators, and production to ensure production deadlines are met.
* Responsible for setting up **Python REST API framework using Django**.
* Developed views and templates with Python and Django view controller and templating language to create a user-friendly website interface.
* Used Python to write data into **JSON files** for testing **Django Websites**. Created scripts for data modeling and data import and export.
* Used **jQuery and Ajax** calls for transmitting **JSON** data objects between frontend and controllers.
* Involved in building database model**, APIs** and **Views** utilizing**Python**, in order to build an interactive web-based solution.
* Thorough knowledge in various front-end tools **like HTML, CSS, JavaScript, XML, jQuery, Angular, and AJAX.**
* Utilized **Microsoft Visio** to create various diagrams for data modeling and creating the database design
* Managed large datasets using **Panda data frames** and **Oracle.**
* Created custom functions, triggers and views to implement Insert, Delete, Truncate, Update functionality in Oracle
* Used Python based **GUI** components for the front-end functionality such as selection criteria.

**Environment**: Python, SQL, HTML, CSS, JavaScript, XML, jQuery, Angular, Django, Oracle, Microsoft Visio, JSON

**Reporting Analyst Jan. 2013 - Dec. 2013**

**Infinite Energy, Gainesville, FL**

* Automated internal tax reporting for the accounts on a regular basis using **VBA, macros** and **SQL** querieson **Excel** and connecting with **SQL Server 2008** and **SQL Server Reporting Services**
* Decreased reporting time by 90 percent and increased accuracy by automating reports using **VBA**, **macros** on **Microsoft Excel 2010.**
* Utilized **pivot tables** along with complex **formulas** and **macros** in **Excel** to develop commodity and revenue reports to summarize and visualize the cash flow data on monthly basis

**Environment**: Microsoft Excel, SQL, VBA, Microsoft SQL Server, SQL Server Reporting Services

# Education

Master of Science in Information Systems & Operations Management Aug. 2011 - Dec. 2013

University of Florida USA

Bachelor of Technology in Computer Science Aug. 2007 - May 2011

Acharaya Nagarjuna University India