Kiran Samudrala

www.linkedin.com/in/kiran--samudrala samudralakiran7784@gmail.com
1856 Fox Chapel Dr SE, Smyrna, GA -30080 (972) 822-9338

CORE COMPETENCIES

- Twelve years of mathematical modeling experience using advanced computational and machine learning techniques
- Skills across the data-flow spectrum: scraping, cleaning, model formulation, model implementation, analysis, insight extraction
- Expertise in several programming/database environments and mathematical libraries including Python, SAS, SQL, C++ and more
- Building data-driven pricing optimization models, machine learning models
- Devising scalable parallel algorithms and expertise in handling large amounts of big-data in real-time
- Leading research and industry projects; teaching and mentoring large groups

EDUCATION AND SKILLS

Iowa State University, PhD in Applied Mathematics **GPA: 3.54/4.00** **May 2013**

- **Merit scholarships:** (Millers) Exceptional young scientist of great promise (2010-12), (Galloway) Best teaching assistant, 2009
- **Travel Awards:** World Conference on Computational Mechanics, Parallel Processing for Scientific Computing by SIAM
- **Publications**: 5 international computational research conferences; 3 journal publications; and a book chapter

Osmania University, Bachelor of Mechanical Engineering **GPA: 7.80/10.00** **May 2005**

- Presented a technical paper on '*Study on Airplanes with Diesel Engines*' (2003); shortlisted as top 10% among 500 papers
- Ranked among top 3.5% of 250,000 participants in a national-level aptitude test

Programming: Python, SAS, SQL, Pandas, TensorFlow, Keras, BLAS/LAPACK, Hyperion, Linux-shell, C++, Java, Django
Scientific skills: Mathematical modeling, Machine learning, Scientific computing
Software skills: Web scraping, Database modeling, Query optimization, Website-building

EXPERIENCE

Specialist, Revenue Management, Delta Air Lines **Sep 2014 – Present**

- Designed machine-learning based upsell optimization pricing models using regression, decision trees, random forests while working with IBM Watson team – expected to contribute millions of dollars in branded products revenue
- Designed machine learning based seasonality automation - contributing to increase in precision of expected revenue calculations
- Rebuilt expected revenue calculations process to bring precision, automation, transparency, performance, control and agility to react to revenue impacting decisions - adding several million dollars every-day to Delta revenue
- Worked on advancing the usage of pricing optimization tools by being the liaison between pricing analyst and OR/IT teams
- Supported strategy-based price matching tool– improved the debugging process to save several human hours in effort

Data Scientist, Illuminate360 **June 2014 – Sep 2014**

- Developed machine learning models to create API-based, highly reusable, cloud-powered, big data product: *InsightFactory* that can extract insights from transactional and business data
- Researched in recasting business problems into big-data problems

Post-doctoral Fellow, Georgia Institute of Technology **July 2013 – May 2014**

- Involved in writing multi-million dollar proposals for federal project called *Materials Genome Initiative*
- Lead researcher on multi-university project for smart automation of scanning microscope

Graduate Assistant, Iowa State University **Aug 2008 – May 2013**

Studied and developed mathematical models for several data-driven problems in Science and Engineering:

- To apply unsupervised spectral machine learning methods to extract insights from high-dimensional data sets
- To compute the surfaces of nanoscale precipitates in terabyte-sized atomic locations data
- Built first-ever parallel eigen-solver that could scale up to million-by-million dense matrices
- Led teaching assistants, mentored students, streamlined course structure to introduce novel simulation components

Senior Software Engineer, Infotech Enterprises Limited **Jun 2005 – Jul 2008**

Developed web-applications on Java, JSP, Struts framework for Pratt & Whitney Corporation

CERTIFICATIONS

Data Analysis with Python **Coursera, May 2020**
Essential Epidemiologic Tools for Public Health Practice **Coursera, July 2020**