# Srivenkata Srikanth

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## Work Experience

### TEK systems Contractor at Bank of America Merrill Lynch

**Junior Quantitative Developer - Global Market Risk** **August 2022 - Present**

- Performed Operational Risk Remediation by implementing process refinements and driving automation initiatives. This involves identifying inefficiencies and bottlenecks and, collaborating with cross-functional teams to devise solutions.
- Delivered model changes and improvements by working closely with quantitative analysts and other stakeholders, ensuring the accuracy and effectiveness of risk assessment models used by the bank.
- Actively contributed to design sessions to innovate in ongoing projects and solve blockers along with the team.
- Automated Overage Reporting by developing a library which automated the generation of 40 reports saving over 150 hours of manual work every quarter.
- Automated the Event Risk quarterly calculations, saving the model owners one week every quarter. This freed up resources for strategic tasks while significantly reducing errors, whilst saving around £13,000 every quarter.

### University of Reading, Reading UK

**Research Assistant (AI Software Engineering & Data Science)** **September 2021 - August 2022**

- Undertook the Critical Chains Fintech Research project, a multi-million-pound project by the European Union.
- Spearheaded 12 stakeholders including EY and Netas, in the final data analysis and modelling phase.
- Performed data analysis and visualised large financial datasets to uncover data stories and insights.
- Feature engineering was executed, and feature importance techniques were utilised for reliability analysis which helped optimise the feature space, speeding up the training process by 50%.
- Developed Fraud detection models using Machine Learning. Engineered Deep Learning and Graph-based Algorithms which boosted the performance by 3%.

### Tata Communications LTD, ITPL, Bangalore

**Project Intern** **June 2019 - July 2019**

- Project: Developed a User Management Application and a chat app using Spring Boot, JDBC and MySQL, which was then containerized using Docker and Kubernetes.
- Participated in daily stand-up meetings and understood the coordination and working of a professional tech deliverable team.
- Skills acquired: MySQL, Docker, Spring boot.

## Technical Skills

- **Programming Languages**: Python, SQL, Java, C, Excel
- **Domains**: Quantitative Development, Data Analysis and Visualization (Python, Tableau), Deep Learning, Machine Learning, Databases (MySQL), Data Structures and Algorithms, Computer Networking, Software Security

## Education

### University of Southampton

**Master of Science** in Computer Science **Completion: October 2021**

- Graduated with Distinction.
- Gained in-depth knowledge and hands-on experience of Data Science and Machine Learning.
- Developed advanced level databases knowledge and implemented a Query Optimizer for a given DBMS.
- Learnt the theory behind and engineered an Automated Negotiation Agent.
- Critically analysed five approaches to solve the Mediaeval data classification problem.
- Learnt Cloud, Web and Mobile Application development and built a website and a Mobile application.

**Amrita School of Engineering, Bangalore**

**Bachelor of Engineering** in Computer Science and Engineering **Completion: April 2020**

- Graduated with First Class + Distinction.
- Key skills gained include Data Structures and Algorithms, Operating systems, Machine Learning and Artificial Intelligence, Computer Networks, Software Engineering and Databases.

## Academic Projects

**Monocular Depth Estimation using Transfer Learning with focus on complex scenarios** (github) **June 2021 – August 2021**

- Concept of Transfer Learning was employed to develop three monocular depth estimation approaches, as an alternative to the currently used expensive and limited LIDAR solutions, saving car owners over $1000 each.
- Three solutions (namely the Pix2pix model, the U-net with DenseNet encoder and the U-net with MobileNetv2 encoder) were developed and experimentally compared.
- A Graphical user interface was developed to facilitate the hybridised and appropriate use of the engineered models.

**Food and Nutrition Analytics** (github) (blog) **April 2022**

- Dataset was originally scraped from MyFitnessPal and transformed into a structured format from JSON using python.
- Food consumption data was analysed and visualized to aid supermarkets in better stocking, and potentially slashing waste generation by over 10,000 tonnes.
- Insights on the diet trends and eating habits of users were produced to bring out the story behind the data.

**Query Optimizer** (github) **March 2021**

- A Query Optimizer and estimator were built for SJDB (A simple data base designed by Dr Nicholas Gibbins).
- The Estimator accepted a database logical query and estimated the total cost in terms of disk accesses.
- The Optimizer optimised a given query by pushing down the Selects, creating Joins and adding Projects.

**Fraud Detection using Graph Machine learning** (github) **January 2022**

- A graph machine learning end-to-end solution was developed to detect fraud on a large financial dataset by Vesta.
- Two Relational graph convolution networks were developed and compared.

**Tweet Classification on the MediaEval Benchmarking Initiative** (blog) **January 2021**

- Theorized solutions five solutions for Twitter MediaEval data and critically analysed them.
- This is an example of a solution proposal that can be used in the initial stages of Data consulting and Research.

## Paper Publications and Certifications

- Deep Learning Specialization by Andrew Ng
- Data Scientist with Python career track by Datacamp
- Detecting Surface Cracks on Buildings using Computer Vision (publication) (github)
- Identification of Criminal Hotspots using Machine Learning (publication) (github)

## Achievements and Extracurricular Activities

- Amrita University Scholarship holder (50% fee waiver)
- IELTS: Band 8 - **Good communication skills**
- Presented the Data Swiss Knife project at Google DSCOMG (August 2020) - **Presentation skill**
- First place in the SLAC Hackathon organized by Honeywell at Amrita School of Engineering – **Problem Solving**
- Top 3% of Indian teams at Nullcon Hackim, an International Capture the Flag event - **Critical thinking**
- Executive Member at Amrita Club for Robotics and Mechatronics (2018-2019) - **Team Player, Leadership**
- Event Coordinator for RASE, a national level robotics competition. (Feb 2019) - **Organization skills**
- Co-Founder at bi0s-Bangalore Cybersecurity club. (Jan 2019) - **Leadership, Mentoring skills**
- Volunteer at Amritanandamayi Math (Event organization, Crowd control and Food service) (Sept 2016 and 2017)