Shreyanth S

Graduate – Data Science and Engineering

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PROFESSIONAL SUMMARY

As a seasoned Data Engineer with 4 years of hands-on experience in ETL, data warehousing, and successful project development, I'm deeply committed to the field of Computer Science. My strong educational background, including a postgraduate diploma in Software Engineering and an MTech in Data Science and Engineering, reflects my dedication to pursuing excellence in this discipline. My academic journey, combined with my professional journey in data engineering, has fueled my ambition to contribute to groundbreaking research and innovation in Computer Science at a prestigious university.

EDUCATION

- **Master of Technology**   [April 2021 – April 2023]
  Data Science and Engineering
  Birla Institute of Technology and Science, Pilani.
  Cumulative GPA: 8.59/10 | Semester GPA: 9.51

- **Post Graduate Diploma**   [October 2020]
  Full-Stack Software Engineering
  NIIT Limited, Tamil Nadu.
  Aggregate: 92% | Grade: Excellent

- **Bachelor of Engineering**   [August 2015 – May 2019]
  Electronics and Communication Engineering
  Anna University, Tamil Nadu.
  Cumulative GPA: 6.5/10

- **Higher Secondary Education (10+2)**   [May 2015]
  Maharishi Vidya Mandir Senior Secondary School, Tamil Nadu.
  Aggregate: 74%

- **Secondary School Education (10)**   [May 2013]
  SBOA School & Junior College, Tamil Nadu.
  GPA: 8.4/10

RESEARCH EXPERIENCE

- **Accurate Brain Tumor Segmentation and Detection using Multi-Task Learning with GlobalNet and FusionNet** (Advisor: *Dr. Surya Prakash Goteti.*)

  Final Semester PG Academic Dissertation - [November 2022 – April 2023]

  - Recognized as one of the top 1% projects in the department, earning a full grade from both internal and external examiners.

  - Devised innovative neural network fusion strategies, establishing new benchmarks in precise brain tumor detection through advanced AI techniques.

  - Distinguished the project by achieving a breakthrough in real-time brain tumor detection, setting a

new standard for rapid, high-precision diagnosis with potential life-saving impact.

o **Neural Image Caption Generation with Visual Attention: Enabling Image Accessibility for the Visually Impaired** (Advisor: *Dr. Chetana Gavankar.*)

Academic Project - [May 2021 – Sep 2021]

- Engineered multi-layered neural architecture for real-time image captioning, integrating visual attention mechanisms, enhancing image accessibility for visually impaired individuals.

- Developed novel image feature extraction pipeline by fine-tuning convolutional neural networks, achieving state-of-the-art captioning accuracy and enabling enriched image understanding.

- Conducted rigorous accessibility evaluations, validating the impact of the proposed system in enhancing visually impaired users' engagement with digital visual content, demonstrating innovation in inclusive technology solutions and assistive technology.

o **Kernelized Deep Networks for Speech Signal Segmentation Using Clustering and Artificial Intelligence in Neural Networks** (Advisor: *Dr. Ramakrishna Dantu & AllMindAI.*)

Academic Project & Research Assistantship - [May 2021 – Sep 2021]

- Pioneered the integration of kernelized deep networks to achieve state-of-the-art accuracy in speech signal segmentation, showcasing advanced expertise in machine learning and signal processing.

- Seamlessly fused clustering algorithms with AI-driven neural networks, amplifying speech signal segmentation accuracy and demonstrating advanced algorithmic aptitude.

- Conducted cutting-edge research at the confluence of artificial intelligence and signal processing, underscoring strong interdisciplinary expertise and aligning perfectly with focus on cross-disciplinary excellence.

o **Multi-Sensor Data Fusion-based Parallel Manipulator with IoT Monitoring Employing Machine Learning** (Advisor: *Dr. Selvi R & AllMindAI.*)

Final Year UG Academic Project - [October 2018 – March 2019]

- Recognized as the best project in the department, earning a full grade from both internal and external examiners, highlighting its innovative approach and technical excellence.

- Developed an IoT-based monitoring system integrated with machine learning to predict and optimize manipulator performance, reducing maintenance downtime by 15%, and also achieving a 20% improvement in positioning accuracy and real-time adaptability.

- Led the implementation of scalable cloud architecture to handle real-time data streams, allowing seamless remote operation and system analytics, and integrating advanced machine learning algorithms to optimize manipulator actions, resulting in a 20% increase in task accuracy and responsiveness.

WORK EXPERIENCE

o **Data Engineer** at *Indium Software (India) Pvt Ltd.*   [September 2020 – Now]

- Collaborated with prominent clients in diverse domains, including Supply Chain Management, Affiliate Marketing, Energy Resource Management and Healthcare, demonstrating a broad spectrum of industry exposure and adaptability.

- Spearheaded the creation of a centralized data platform, unifying heterogeneous data sources and orchestrating ETL/ELT processes, particularly excelling in the seamless transformation of Oracle data to Snowflake utilizing cutting-edge technologies such as DBT and Apache Spark on Azure.

- Pioneered the development of Snowpipe for real-time ingestion from AWS S3 to Snowflake, revolutionizing data access and analytics by handling semi-structured and unstructured data formats efficiently.

- Led the strategic migration of on-premises data infrastructure to Azure cloud, achieving a remarkable 40% reduction in operational costs while enhancing data accessibility, a testament to cost-conscious decision-making.

- Established robust data governance frameworks, including data security measures and automated data standardization, alongside mentoring and leadership within the Data Engineering team, fostering professional growth and delivering tangible value to projects.

○ **Product Architect** at *Sciencotonic Edu (India) Pvt Ltd.*   [May 2019 – May 2020]

- Spearheaded the development of cutting-edge algorithms and models to personalize content recommendations, resulting in a significant enhancement of user experience and engagement.

- Formulated architectural and design principles that substantially improved product performance, capacity, and scalability, showcasing an ability to align technical solutions with business needs and product vision.

- Collaborated seamlessly with data engineers and data scientists to optimize data pipelines and enhance the recommendation system's accuracy, underscoring a strong foundation in leveraging data for informed decision-making.

- Provided valuable technical guidance and mentorship to the development team, ensuring strict adherence to architectural standards and best practices, fostering a culture of excellence within the organization.

- Successfully analyzed market segments and customer bases to identify market opportunities, translating these insights into refined product requirements that drove the development of market-leading solutions, showcasing a holistic approach to product development.

○ **Freelance Software Developer** at *Upwork Inc.*   [November 2018 – May 2021]

- Successfully completed 19 diverse projects, achieving an impressive 5/5 rating on 11 projects, highlighting exceptional client satisfaction. Maintained an exceptional average rating of 4.75, reflecting consistently high-quality work and client service.

- Proficiently utilized D3.js and Python to create data analysis charts, enabling clients to gain valuable insights from customer data showcasing a strong grasp of data analytics and visualization, essential for modern software development.

- Designed user-friendly interfaces for contact management, integrating Google Maps for location visualization with advanced filtering capabilities. Developed e-signature interfaces using Java and JavaScript, enhancing user experience and efficiency.

- Leveraged data engineering techniques to monitor production processes, create data processing jobs, and resolve bugs and issues in customer products. Demonstrated an aptitude for maintaining data integrity and optimizing data-driven systems.

- Skillfully developed interfaces for static graphs using Matplotlib and Python, showcasing competence in data visualization libraries beyond D3.js for handling various graphical data representation tasks.

INTERNSHIP EXPERIENCE

ML and Data Science Intern at *iNeuron AI.*   [May 2022 – September 2022]

Software Engineer Intern at *IBM India Pvt Ltd.*   [January 2019 – April 2019]

ML and NLP Intern at *ZRAE Global.*   [August 2017 – March 2019]

Data Scientist Intern at *Crayon Data India Pvt Ltd.*   [August 2018 – November 2018]

PUBLICATIONS

1. Shreyanth S. and Niveditha S. (2023); CLUSTER-BASED GRID COMPUTING ON WIRELESS NETWORK DATA TRANSMISSION WITH ROUTING ANALYSIS PROTOCOL AND DEEP LEARNING Int. J. of Adv. Res. 11 (Jun). 517-534. http://dx.doi.org/10.21474/IJAR01/17096

2. Rajesh PK, Shreyanth S and Sarveshwaran R; Enhanced Credit Card Fraud Detection: A Novel Approach Integrating Bayesian Optimized Random Forest Classifier with Advanced Feature Analysis and Real-time Data Adaptation; Volume-12; ISSUE-5; 2023; pp. 537-561. https://doi.org/10.48047/IJIEMR/V12/ISSUE05/52

3. Shreyanth, S., Harshitha, D.S. & Niveditha, S. Implementation of Machine Learning in VLSI Integrated Circuit Design. SN COMPUT. SCI. 4, 137 (2023). https://doi.org/10.1007/s42979-022-01580-5

4. A. K. . Pandey, Shreyanth S., J. Prabhakaran, A. . Bodhankar, A. . Kumar, and N. . Sateesh, Big Data Predictive Analysis for Type-2 Diabetes Based Heart Disease Using Feature Extraction and Classification by Machine Learning Architectures, Int J Intell Syst Appl Eng, vol. 10, no. 3s, pp. 138 –, Dec. 2022. https://doi.org/10.48047/ecb/2023.12.si7.168

5. Yogendra Narayan Prajapati, U. Sesadri, M. . T. R., Shreyanth S., Ashish Oberoi, and Khel Prakash Jayant, Machine Learning Algorithms in Big Data Analytics for Social Media Data Based Sentimental Analysis, Int J Intell Syst Appl Eng, vol. 10, no. 2s, pp. 264 –, Dec. 2022. https://doi.org/10.48047/ecb/2023.12.si7.165

INTELLECTUAL PROPERTY (PATENTS)

○ Hitendra Kumar Lautre, Dr. Govindan Vediyappan, Dr.Mary Adline Priya, Shreyanth Srikanth, Dr. Ravichandran Subramanian, Mr. Kunal Singla, Dinesh Kumar, "IOT based Wearable Device for Monitoring of Vital Body Health Information", UK Design Patent, Design number: UK 6293790.

○ Shreyanth S, Rajesh P K, Sarveshwaran R, Dr. Amar Saraswat, Nupur Aggarwal and Naveen Kumar, "System and Method for an Architectural Framework for Design of an Interactive Content Delivery System using Machine Learning Model", Indian Utility Patent, Application Number: IN 202311027575.

ACADEMIC PROJECTS

○ **End-to-End Data Analysis, Model Building, and Cloud Deployment Pipeline for Actionable Insights in Machine Learning Solutions**   [August 2022 – September 2022]

○ **Optimizing Real-Time Fraud Detection in Financial Transactions using Databricks**

[June 2022 – September 2022]

○ **Interactive-One: College Management Application with all the insights and KPI Dashboard**

[September 2020 – October 2020]

○ **Socio-friendly Medical System that connects all the hospital related areas to one place**

[April 2020 – May 2020]

- **Edge Count Matrix for Identification of Frequent Subgraphs by Ensemble Machine Learning**

  [April 2018 – September 2018]
- **Expert System for Computationally Optimized Image Classification**   [February 2018 – July 2018]

SKILLS

- **Operating System:** Windows, Linux, MacOS.

- **Data Engineering:** ETL (Extract, Transform, Load) processes, Big data technologies (e.g., Hadoop, Spark), Data warehousing and data modeling, Database design and management (SQL, NoSQL), and Data pipeline development and orchestration.

- **Programming and Software Engineering:** Proficiency in programming languages like Python, Java, JavaScript and C++, Software development methodologies (Agile, Scrum), Version control systems (e.g., Git and BitBucket), and Software testing and quality assurance.

- **Machine Learning and Data Science:** Advanced knowledge of machine learning algorithms and techniques, Data analysis and visualization tools (e.g., Pandas, Matplotlib, Seaborn), Deep learning frameworks (e.g., TensorFlow, PyTorch), and Statistical analysis and hypothesis testing.

- **Cloud Computing and Infrastructure:** Cloud platforms (e.g., AWS and Azure), Containerization and orchestration (Docker, Kubernetes), Infrastructure as Code (IAC) tools (e.g., Terraform), and DevOps practices and continuous integration/continuous deployment (CI/CD).

- **Product Architecture and Design:** System architecture and design principles, Product lifecycle management, User experience (UX) design, and Prototyping and wireframing tools (e.g., Sketch, Figma).

VOLUNTEERING

- **Maths Aficionados Club Member** at *Birla Institute of Technology and Science, Pilani*

- **Research Assistant** at *Zion Robotics and Advanced Engineering (ZRAE) Global (AllMindAI)*

- **Tech Club President** at *my UG college*

- **Teaching Assistant** at *my UG college*

HONORS & AWARDS

- **Gem Award (Best Employee of the Quarter Q1 2023-2024)** issued by *Indium Software*

- **Spot Award (Best Employee of the Month May 2023)** issued by *Indium Software*

- **Data Ninja (Best Employee of the Quarter (Client) Q1 2022-2023)** issued by *Indium Software*

- **Data Ninja (Best Employee of the Month (Client) H2 2021-2022)** issued by *Indium Software*

- **Best Paper & Presentation Award** issued by *ICDSAI 2023 in collaboration with CSU*

- **UG Best Project Award (Final Year Project)** issued by *my UG college*

- **Hackathon (Inter-College)** issued by *my UG college*

- **Fomra Quest 2017 (National-Level Technical Symposium)** issued by *my UG college*

- **UG Dean Scholarship Award** issued by my *UG college*

CERTIFICATIONS

- CS50X, CS50P, and CS50AI from Harvard University.

- Statistical Learning, Relational Algrbra, CS 101, and Algorithms: Design and Analysis I & II from Stanford University.

- Applied Data Science Module I & II from WorldQuant University.

- Big Data, and Advanced Algorithms and Complexity from University of California - San Diego (Coursera).

- Python for Everybody from University of Michigan (Coursera).

- Accelerated Computer Science Fundamentals Specialization from University of Illinois at Urbana-Champaign (Coursera).

- Computer Vision Basics from State University of New York at Buffalo (Coursera).

- Discrete Mathematics, and Machine Learning (ML) from Indian Institute of Technology, Madras (NPTEL).

- Database Management System (DBMS) from Indian Institute of Technology, Kharagpur (NPTEL).

- Mathematics for Machine Learning from Imperial College London (Coursera).

- Professional Diploma Program in Software Engineering from European Open University.

- Machine Learning with Python from FreeCodeCamp.

- AWS Solutions Architect Associate & CCNA Training from Network Geek.

- Databricks, Cloud, DBT and Business Communication from Indium Academy.

- Fundamentals of Digital Marketing and Advanced Google Analytics from Google Digital Garage and Google Analytics Academy.

- Software Development from Pankaj Sir Academy.

- Software Development and Testing from QSpiders Academy.

SOCIAL VOLUNTEERING EXPERIENCE

- CSR Member for Kanaa (Socio-Emotional Mental Learning (SEML) Project by Indium Software)

- Teach Volunteer and Circle Leader for U&I Org (Change in education and mental healthcare)

- Distribution and Organising Committee Member for Robin Hood Army (RHA) (Get surplus food from restaurants to the less fortunate sections of society in cities)

- Volunteer for We Are Your Voice (Connecting Socially Responsible HR Professionals and Employers with differently-Abled Budding Professionals)

- Volunteer for Kindness Unlimited (KU) (connect and unify citizens through acts of kindness)

COMPETITONS & HACKATHONS

- Finalist at Walmart Sparkathon

- Top 10 performer at Databricks Sparkwars hackathon
- Participant and Innovative Solution Approacher at FutureSkills Prime 24Hr AI Challenge
- Finalist at HackerTech

PANEL MEMBERSHIP & ROLES

- Editorial Board Member for PriMera Scientific Engineering Journal (ISSN: 2834-2550).
- Reviewer for IJMLC (E-ISSN: 1868-808X), a Springer journal indexed in Scopus.
- Reviewer for IJCDS (E-ISSN: 2210-142X), a Scopus indexed journal.
- Reviewer for Medicon Engineering Themes Journal (ISSN: 2834-7218).
- Reviewed for ICAISC 2023, INDISCON 2023, ICDSNS 2023, an IEEE-organized conferences indexed in Scopus

INTERESTS

- Artificial Intelligence (AI) and Machine Learning
- Big Data Analytics and Data Science
- Cloud Computing and Distributed Systems
- Software Engineering and Architectural Design
- Networking and Distributed Systems