Nithyashree Senguttuvan

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SUMMARY OF QUALIFICATIONS
- Proficient in advanced Python, R and SQL languages, adept at leveraging data analysis and machine learning techniques.
- Possesses a solid foundation in theoretical concepts and practical experience gained through graduate studies.
- Dedicated to driving innovation, fostering collaboration, and continuously expanding skills to contribute to organizational success.

EDUCATION
Master of Science in Computer Science   **May 2024**
Washington State University, Pullman, Washington
(Grade: 3.82/4)
Actively conducted rigorous educational research on Anomaly Detection Techniques and Application of Seasonal Ratio Score in healthcare applications under the guidance of Prof. Venkata Janardhan Rao Doppa.

Bachelor of Engineering in Computer Science   **March 2021**
Sri Krishna College of Technology, Coimbatore, India
(Grade: 9.44/10, Department Rank: 1, out of 167 students)
Cardiovascular disease prediction using particle swarm optimization - **Thesis 2021.**

SKILLS
- Programming - Python, R , MySQL (Advanced), C, Java (Intermediate).
- Data science – Data collection, Data preparation, Data Visualization, Network Science, Genomics, Graph Theory, Machine Learning, Artificial Intelligence, Analytics.
- Knowledge and Software - SAP ERP, Data Stewardship platform, Google Cloud Platform (GCP), Azure Databricks, Large Language Model (LLM), Generative AI, Tableau, Microsoft Power BI.

CERTIFICATIONS AND COURSES - TECHNICAL
- **SWAYAM, NPTEL** - National Programme on Technology Enhanced Learning, IIT(Kharagpur,Madras) - *7 certifications,* showcasing expertise in various technical domains to support bachelor's degree coursework.
- **Qwiklabs** - *Data Science and Machine Learning Track,* demonstrating proficiency in GCP strategies.
- **Databricks -** *7 certifications*, illustrating mastery in using Databricks platform for data analytics and processing.

PROJECTS
Exploring and Visualizing Personal Music Trends with Spotify   **Spring 2024**
Elements of Network Science Project, Washington State University, Pullman, Washington
Conducted thorough analysis utilizing the Spotifyr package and Spotify API within the R programming environment. Delved into comprehensive data exploration and interpretation to extract valuable insights. Employed advanced techniques to gain nuanced understanding and inform strategic decision-making.

Comment Toxicity Identification model   **Spring 2024**
Neural Network Design and Application Project, Washington State University, Pullman, Washington
Created an advanced Neural Network model proficient in accurately detecting and categorizing comment toxicity levels. Showcased expertise in utilizing natural language processing techniques to tackle modern challenges in online content moderation with Gradio API.

Music Genre Classification   **Fall 2022**
Machine Learning Project,Washington State University,Pullman,Washington
Developed a classification project utilizing the K-Nearest Neighbors (KNN) method to categorize music genres within the GTZAN dataset. Implemented feature analysis across ten distinct genres to accurately classify music samples, demonstrating proficiency in machine learning techniques and dataset manipulation.

Uncovering "The Great Resignation"   **Fall 2022**
Data Science Project, Washington State University, Pullman, Washington
Developed a Machine Learning model to analyze attrition rates and their impact across various industries.

Smart India Hackathon 2020   **February 2020**
An event organized by the Central Government of India, Delhi and won the "Internal Hackathon" conducted at Sri Krishna College of Technology, Coimbatore. India
Developed and presented a deep learning model using Keras, TensorFlow, Python, Nvidia, and communicated through Slack and Twilio. Analyzed CCTV footage to detect criminals by recognizing their face, expression, and gesture with the assistance of PowerBI.

Smart SKCT Hackathon 2019   **September 2019**
Held at Sri Krishna College of Technology, Coimbatore. India
Created a user-friendly application for our college's food court and shops using Android Studio. Implemented microservices with Flask, following fundamental design principles for scalability. Integrated services seamlessly with Spring Boot Microservices and presented the project

PROFESSIONAL EXPERIENCE

Junior Engineer (Full time)   **June 2021 - August 2022**
Astrazeneca, Chennai, India
- Managed quality and compliance throughout the change and document management process associated with SAP (an Enterprise Resource Planning Platform) for pharmaceutical production .
- Contributed to the Process Periodic Review in January 2022 and July 2022 to ensure seamless workflow compliance with GxP and SOX regulations, GAMP 5, and 21 CFR Part 11.
- Implemented the Data Stewardship Platform, a comprehensive data management software, within a collaborative environment to oversee, organize, design, and construct data lifecycles that foster active collaboration with business users, ensuring streamlined data handling and management processes.

Graduate Teaching Assistant(Part time)   **January 2023-May 2024**
Washington State University, Pullman, Washington
- Demonstrated adeptness in educational support and facilitation within the realm of computer science.
- Collaborated closely with esteemed professors such as Prof. Bolong Zeng, Prof. Yan Yan and Prof. Jeremy Thompson to ensure smooth execution of course activities and student support.
- Leveraged expertise to conduct research and enhance assignments for System Programming Java, showcasing a commitment to continuous improvement and innovation in educational practices.
- Led students through hands-on lab activities for the System Programming Java course, cultivating practical skills and reinforcing theoretical concepts in a dynamic learning environment.

INTERNSHIP

*Market Research Intern,***Zinnov Management Consulting Private Limited (Draup),** Coimbatore, India   **July 2020**
Handled data collection, preprocessing, and management during internship tenure. Employed efficient methods to gather and organize diverse datasets. Ensured data integrity and accessibility for analytical purposes.

*Intern,***TATA Elxsi,** Bengaluru, India   **May 2019**
Applied Artificial Intelligence (Deep Neural Networks) to Enhance Autonomous Vehicles.
Gained proficiency in Artificial Intelligence, starting with Artificial Neural Networks and progressing to Deep Neural Networks, and successfully applied this knowledge to improve vehicle performance.

PROFESSIONAL TRAINING

Techzy IT Solutions, Coimbatore, India   **May 2023 - July 2023**
Applied Data Science and Machine Learning fundamentals with Python proficiently in a live project during internship, translating theoretical concepts into practical solutions.

Uniq Technologies, Coimbatore, India   **December 2018**
Acquired foundational software skills in Photoshop for editing, Dreamweaver for static website creation, Android Studio, and Flash, through a theory class on Software Development Life Cycle.

PUBLICATIONS

Senguttuvan, Nithyashree and Namasivayam, Vigneshwaran, Artificial Intelligence and its Application in Cardiovascular Disease Management — *Machine Learning and Systems Biology in Genomics and Health. 2021.* pp 189 - 236

CONFERENCE PROCEEDINGS AND PRESENTATIONS

- **Coronary Artery Disease Prediction by Unsupervised Learning and Particle Swarm Optimization** — *First International Conference on Next Generation Computing Systems (ICNGCS 2021)***,** Coimbatore. India. **27th March 2021**
- **Survey paper on Generative Adversarial Neural Networks** — *Sixth National Conference on "Recent trends in Computer Science"***,** Chennai. India. **13th September 2019**

AWARDS

- **Rank 1 - Honor for Merit,** Sri Krishna College of Technology, Coimbatore, India   **2022**
- **National Programme on Technology Enhanced Learning (NPTEL) Discipline Star,** Indian Institute of Technology (IITs), India   **2020**

CLUBS AND ACTIVITIES

- Professional Development Coordinator, Graduate Society of Women Engineers   **August 2022 - May 2024**
Spearheaded initiatives such as organizing workshops and speaker series, to enhance member development and professional growth among peers.

- Member, International Association of Engineers - 283521   **April 2021**
Participated as a member by actively engaging in networking and professional development opportunities.

- Member, Google Developer Group, Coimbatore   **April 2021**
Engaged as a member by actively participating in community events and discussions surrounding Google technologies and development practices.

VOLUNTEER EXPERIENCE

International Student Peer Mentor, International Programs   **December 2022 - May 2024**
Provided guidance and support to fellow international students, aiding in their adjustment to university life.