

Rohit Raj Gunti

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ACADEMICS:

Ph.D. Candidate in Information Science, University of Tennessee, Knoxville	Artificial Intelligence Specialization	Aug 2022 – May 2026 (Confirmed)
Master of Science in College of Emergency Preparedness, Homeland Security and Cybersecurity, State University of New York (SUNY), Albany	Information Management Systems Specialization (STEM)	Jan 2020– May 2021
Bachelor of Technology in Electronics, CMR Engineering College (CMRCET), Jawaharlal Nehru Technological University, Hyderabad, India	Computer Science Specialization	Sep 2015 – Apr 2019

TECHNICAL SKILLS:

Learning Management Systems (LMS): Canvas (Infrastructure), Blackboard Learn

Programming Languages & Scripting: Python, R, SQL, SQLite, MySQL, MongoDB, Oracle, Scala, JavaScript, HTML, CSS, Angular, C, C++, Data Structures, MATLAB, Simulink, Shell/Bash, Assembly

Big Data & Distributed Systems: Spark, PySpark, Hive, HDFS, MapReduce, Yarn, Cloudera, Zookeeper, Sqoop, Oozie, Kafka Connectors

Cloud Platforms & Services: Amazon Web Services (EC2, EMR, EBS, RDS, S3, Lambda, DynamoDB, Connect, Chime), Microsoft Azure, Bolt Cloud & APIs, VPS interfacing, GlobalProtect, Jabber

DevOps & Version Control: Git, GitHub, Jenkins, Maven 4.0, Docker

Data Science & Analytics Tools: TensorFlow, Keras, Tableau, Power BI, SPSS, Anaconda, RAP Dashboard

Development Tools & IDEs: Visual Studio, PyCharm, Eclipse, Spyder, LM Studio, Open OnDemand, Hugging Face

Operating Systems: Unix/Linux (RedHat, Ubuntu, AIX, VMS, DOS), Windows, macOS

Voice Development & Automation: Voiceflow, Dialogflow, Google Assistant, Amazon Alexa, Integromat

Additional Tools & Platforms: Putty, Digital Ocean, Amazon NetSuite, EGATE Projectors, Amazon Connect

Microsoft Office Suite: Word, Excel, PowerPoint, Access, Visio, Teams

Creative & Media Tools: Adobe Photoshop, Adobe Creative Suite, Digital Photography

Mobile & Communication Platforms: Android, iOS, Telegram, Microsoft Teams, Amazon Chime

Embedded Systems & Hardware Design: Arduino, Raspberry Pi, ESP8266, Bolt IoT, ARM Cortex-based microcontrollers, Atmel Studio, PIC Microcontrollers, PCB Design (Altium Designer, Eagle CAD), Circuit Simulation (LTSpice, Multisim, Proteus), Soldering and Circuit Prototyping, DC-DC Converter Design, Low-Power Electronics Design, Sensor Interfacing (Infrared, Ultrasonic, Temperature, LDR, Buzzer, Relay Modules), Breadboard and PCB Assembly, Hardware Debugging & Testing

Telemetry & Communication Systems: GSM/GPRS Communication, Wi-Fi and MQTT Protocols, IoT Data Logging and Control (Bolt Cloud, AWS IoT), Remote Monitoring Systems, Serial (UART/I2C/SPI) Communication, RF Transceiver Modules

PROFESSIONAL EXPERIENCE:

Academic Experience

1. Graduate Teaching Associate (Instructor)

Aug 2022 – Present

- Conducting ongoing research with Dr. Potnis; initiated earlier projects with Dr. Rorissa and Dr. Horne
- Teaching Information Search asynchronously to undergraduate students as Instructor of Record
- Designing and preparing course materials to support student learning

- Participating in professional development and training opportunities through Teaching & Learning Innovation
2. **Volunteer as a Contact Tracer for Covid-19 at SUNY Albany** **Aug 2020 - Nov 2020**
 - Assisted in contact tracking and data management efforts supporting the University and surrounding community
 - Built skills in new processes, systems, and data analytics to strengthen operational effectiveness
 - Educated students on emergency management, mental health programs, and community engagement initiatives
 3. **Marketing Partner Internship, India, Bolt Private Limited** **Jan 2019 – Mar 2019**
 - Promoted awareness of Internet of Things (IoT) and Machine Learning (ML) concepts through brand development and outreach initiatives for Bolt IoT & ML online video training
 - Contributed to business development strategies, supporting training adoption and market presence
 - Delivered presentations and workshops to undergraduate students (freshers, sophomores, and juniors) at CMR College of Engineering and Technology and the College of Information Technology
 - Successfully advocated to institutional leadership (Dean and Department Head) for integrating IoT and ML training into student learning
 - Encouraged and guided many students to enroll in training programs, enhancing their familiarity with IoT and ML

Industry Experience

1. **Software Engineer contract with Tata (TCS), via InfoExcel** **Jan 2022 – May 2022**
 - Gained expertise in full-stack development through projects spanning front-end, back-end, DevOps, and cloud technologies
 - Applied skills across the software development lifecycle, contributing to design, development, deployment, and maintenance
 - Strengthened technical proficiency in modern frameworks, tools, and cloud platforms while delivering project-based solutions
2. **Computer Operator I contract with IGT, via Vertisystem** **Dec 2021 – Jan 2022**
 - Troubleshoot host systems, middleware, servers, and applications, ensuring operational stability and reliability
 - Monitored logical security using established tools and procedures to maintain compliance and protect system integrity
 - Performed entry-level monitoring of automated functions, verifying toolset availability, service status, and anomaly detection with proper documentation
 - Ensured adherence to IT best practices by following established performance standards and audit requirements
 - Maintained compliance with Service Level Agreements (SLAs) by consistently meeting performance benchmarks
3. **Data Engineer at Edge Cloud Technologies** **Aug 2021 – Dec 2021**
 - Analyzed datasets to identify trends and developed algorithms to support data-driven decision-making
 - Designed, developed, and delivered data assets, ETL pipelines, and software solutions to meet business needs
 - Built secure, scalable, compliant, and resilient data solutions aligned with organizational standards
 - Collaborated within an agile team, actively contributing across all phases of the software development lifecycle (SDLC)

PUBLICATIONS

1. Gunti, R. & Potnis, D. (2026). Proposing a Coding-free Methodology to Customize Large Language Models to Automate Services in Information Organizations (Under review).

2. Gunti, R. R. (2025). Proposing an Integration Methodology to Customize Large Language Models for Information Services. Conference and Labs of the Evaluation Forum (CLEF 2025), Madrid, Spain. https://clef2025.clef-initiative.eu/resources/Posters_programme_v4.pdf
3. Karlgren, J., Engels, M. I., Barrett, M., Gunti, R. R., Hoveyda, M., Sotic, B. N., Kamps, J., Koistinen, M., Zosa, E. (2025). Overview of Robustness and Consistency Task of the ELOQUENT 2025 Lab for Evaluating Generative Language Model Quality. In Working notes of the Conference and Labs of the Evaluation Forum (CLEF 2025) (pp. 1305-1318). CLEF. Madrid, Spain, 9–12 September. <https://www.scopus.com/pages/publications/105019040432>
4. Gunti, R. R., Rorissa, A. (2025). Evaluating the Performance of the Finetuned Quantized Llama 3 Based on Relevance, Truthfulness, Naturalness, and Safety. In Working notes of the Conference and Labs of the Evaluation Forum (CLEF 2025) (pp. 1399-1405). CLEF. Madrid, Spain, 9–12 September. https://ceur-ws.org/Vol-4038/paper_111.pdf
5. Gunti, R. R. (2025). The Distinctive Data-Centric Approach for the Voight Kampff Task. In Working notes of the Conference and Labs of the Evaluation Forum (CLEF 2025) (pp. 1389-1398). CLEF. Madrid, Spain, 9–12 September. https://ceur-ws.org/Vol-4038/paper_110.pdf
6. Gunti, R., Rorissa, A. (2025). Evaluating the ResNet and DenseNet Models for Birdcall Audio Classification. In: Nagar, A., Jat, D.S., Mishra, D., Joshi, A. (eds) Intelligent Sustainable Systems. Worlds4 2024. Lecture Notes in Networks and Systems, vol 1177. Springer, Singapore. https://doi.org/10.1007/978-981-97-8695-4_17
7. Gunti, R. (2023). The future of AI at UT. CCI Research & Innovation Center. <https://cci.utk.edu/ric/2023/10/20/the-future-of-ai-at-ut/>
8. Rohit Raj Gunti, & Abebe Rorissa. (2023). Calculating the Effectiveness of RCNN-based Coral Reef Classification. <https://doi.org/10.5281/zenodo.7770568>
9. Gunti, R. R., & Rorissa, A. (2023). A Dual of Stacked Attention Networks (SAN's) and VGG-16 Model-Based Visual Question Answering Evaluation. In M. Ali-anejadi, G. Faggioli, N. Ferro, & M. Vlachos (Eds.), Working Notes of the Conference and Labs of the Evaluation Forum (CLEF 2023) (Vol. 3497, pp. 1478–1487). CEUR. <https://dblp.org/rec/conf/clef/GuntiR23.html>
10. R. R. Gunti, A. Rorissa, A Dual Convolutional Neural Networks and Regression Model Based Coral Reef Annotation and Localization: Experimental IR Meets Multilinguality, Multimodality, and Interaction, Proceedings of the 13th International Conference of the CLEF Association (CLEF 2022), LNCS Lecture Notes in Computer Science, Springer, Bologna, Italy, 2022. <https://dblp.org/rec/conf/clef/GuntiR22.html>
11. Gunti, R., & Rorissa, A. (2021). A Convolutional Neural Networks based Coral Reef Annotation and Localization. <https://api.semanticscholar.org/CorpusID:237298716>

ACCOMPLISHMENTS AND CERTIFICATIONS

- Certified and recognized as the most active member, securing the #1 leaderboard ranking at asis&t 2025
- Certified for attending the 88th Annual Meeting of the Association for Information Science and Technology, 2025.
- Certified for attending and presenting papers at Eloquent 2025, Madrid, Spain, and asis&t MYC 2023.
- Certified as presenter at World Conference on Smart Trends in Systems, Security and Sustainability (WorldS4 2024) (pp. 123-130). London, UK: WorldS4
- Reviewed a manuscript and certified as a reviewer on the Elsevier Reviewer Hub. Certified reviewer for Marine Environmental Research Journal

- Executed qualitative field data collection through direct, on-location audio recording of bird soundscapes across numerous national birdwatching sites in Ireland
- Certified for attending and presenting papers at CLEF 2021, online, Beijing, 2022, Bologna, Italy, 2023, Thessaloniki, Greece.
- Certified COVID-19 tracer for completing the non-credit authorized course by Johns Hopkins University
- Certified Voice application trainee and intern at Bolt
- Certified TechnoShots trainee at Bolt
- Certified as IoT and ML intern at Bolt
- Certified as Student partner intern at Bolt
- Certified for participating in Two-day workshop Electronic Design & PCB Fabrication under an industry-oriented skills development program
- Certified and awarded the P.G. Diploma in Computer Applications at New Generations Computers
- Applauded for maintaining the highest RAP score at Amazon development Centre, Hyd-20

SCHOLARSHIPS AND AWARDS

- Awarded Edward J. Meeman Scholarship for demonstrating successful academic performance as an international student in 2022, 2023, and 2024.
- Awarded Graduate Student Senate Travel award in 2022, 2023, and 2025.

SERVICE AND OUTREACH

- Co-organizing a task in [ELOQUENT Lab 2026](#) that focuses on the evaluation of generative language model quality.
- Reviewed a manuscript and certified as a reviewer on the Elsevier Reviewer Hub. Certified reviewer for Marine Environmental Research Journal
- Volunteered to be a chaperone for a travel on a UTK, CCI information sciences school-led professional trip to Atlanta. ([Link](#))
- Volunteered to be a colleague at social media's effects at Adam Brown Social Media Command Center ([ABSMCC](#)) at UTK CCI
- Organized “meet and greet” events for first-year PhD students to meet the director of Information Sciences, Dr. Abebe Rorissa. Additionally, sought out to first year students to resolve their queries about the PhD program

PROJECTS

Projects in PhD

1. **Stance Detection on YouTube, IEEE project (Under review)** **Sep 2025 – Jan 2026**
 - Proposed a CODEBOOK with seven themes and thirty-three code categories. This CODEBOOK played a crucial role in understanding user behavior analysis, i.e., detecting stances of YouTube users about AI-generated content.
 - The stance detection is validated using a mixed-method strategy, and the findings (agreement score, 91.45%) were in favor of CODEBOOK.
2. **AI for Social Good** **Sep 2025 - Present**
 - The objective of this project is to explore how artificial intelligence can be strategically utilized to advance social development goals, with a particular focus on delivering meaningful impact for populations at the bottom of the pyramid
 - Currently performing the data analysis and reviewing hundreds of papers collected in the data collection
3. **Identifying Online Influencers** **Mar 2023 – Jan 2025**
 - The objective is to identify online social media influencers using three superdiffusers traits: connectivity, persuasiveness, and mavenness

- Collected and analyzed data using the YouTube API (comments, captions, video transcripts) to identify potential influencers
- Drew on Rogers' Diffusion of Innovation theory and extended work on persuaders (e.g., Boster's polymorphic "superdiffuser" model) as a theoretical foundation

Projects in Masters

- 1. Home Automation Projects at Bolt Voice Applications Training** **Apr 2020 – Jun 2020**
 - All smartphones come equipped with Google Assistant (Ok Google!), Alexa, and other voice assistants. It is expected that in 2020, 50% of all searches will be voice searches. The objective is to learn how to build voice-controlled apps
 - Built Voice interfaces and Learned JavaScript, CSS, and manipulated HTML content using JavaScript. Worked on HTTP and Application Programming Interfaces (APIs) and integrated with apps like Facebook and Twitter

Projects in Bachelors

- 1. A Robotic Crack Inspection and Mapping System** **Mar 2019 – Apr 2019**
 - The objective is to develop a robotic crack inspection and mapping system that can conduct an accurate assessment of cracking on bridge decks
 - Assembled and connected all hardware components and gave the components and code when asked by the signatories
- 2. Avoidance of Accidents using Infrared sensors** **Jun 2018 – Jul 2018**
 - The objective is to develop a safety feature in cars to avoid colliding with a vehicle or an obstacle in the way
 - Assembled and connected all hardware components and gave the components and code when asked by the signatories

Bachelor Internship Projects (<https://www.hackster.io/>) **Oct 2019 – Dec 2019**

- 1. Industrial Temperature Monitoring and Alerting System (Capstone Project)**
 - The objective is to send alerts when the temperature crosses the set thresholds, also integrate an anomaly detection technique
 - Applied all learnings of the four modules (prediction, Polynomial regression, Anomaly detection, Z-score analysis) to build the project. Developed
- 2. Environment Monitoring System**
 - The objective is to develop a monitoring system that senses the light intensity in a room and also visualizes the data in the form of a graph. They are also used to monitor the light received by plants in a greenhouse or even at your home.
 - Assembled and connected all hardware components and gave the components and code in the assignments. Controlled LED and Buzzer over Bolt Cloud applied Custom visualizations and buzzer control, where HTML and JavaScript are used to interface different sensors with the Bolt device. This system can control the lights in the house from a smartphone.
- 3. Industrial Temperature Monitoring Systems**
 - The objective is to develop an industrial temperature monitoring an email system that sends alerts over SMS and email in case the temperature crosses a threshold. This system is used in industries like Pharmaceutical, Chemical Manufacturing, etc.
 - Checked Bolt module status using a Python Program, restarted Bolt module using a Python program, in which I interfaced with Sensor over VPS (Virtual Private Server), developed a Python program to send an SMS, and an email alert when the temperature crosses the threshold
- 4. Social Media Monitoring**
 - The objective is to post automated Facebook, Twitter, and Instagram posts when the temperature of a physical device takes action, e.g., Fridge door opened, pollution in an area is too high, etc.

- Developed a Python program for posting a tweet on Twitter when the temperature crosses the threshold

5. Data Prediction System Using Machine learning

- The objective is to predict the temperature values in advance and alert even before any tragedy occurs. Anomaly detection using Machine learning to identify when it is time to repair a machine automatically.
- Used polynomial regression on Boult Cloud to predict the next data set, implemented an Anomaly Detection algorithm, and analyzed Z-scores for sending alerts when something is amiss. Moreover, flawlessly performed the Ambient light anomaly detection system integrated with Facebook in the Assignment.