Shreya Rajpal

Delhi, India | +91 9811903600 | shreyarajpal6@gmail.com | www.projectsbyshr.in |
https://www.linkedin.com/in/shreya-rajpal-817066221/ | https://github.com/Shreyaar12

EDUCATION

Vellore Institute of Technology Vellore, Tamil Nadu   2021-2025
Bachelor of Technology in Computer Science Engineering, GPA 8.73/10.0

- Top 10% of the class in a cohort of 70 students.
- *Board Member- Technical Head, IEEE Society on Social Implications of Technology (SSIT) VIT:* Spearheaded initiatives integrating technology with social impact, enhancing the society's engagement and visibility mentoring over 40 students.
- *Project Admin, GSSOC'23:* Led the administration of 2 significant projects, demonstrating leadership in open source community development handling over 900 issues and 800 pull requests in 2 repositories.
- *Core Committee Member, IEEE-Women In Engineering (WIE) VIT & VIT Anchoring Club (VITAC):* Actively contributed to the promotion of gender diversity in engineering and anchored major cultural and social events.
- *Event Coordinator, "Hooked on React" 2022, IEEE WIE VIT:* Successfully coordinated a significant technical event, facilitating knowledge exchange on React with an audience of 100.
- 1st Prize at Eco Hack IEEESSIT, VIT (2021) among 50+ teams from VIT, University.
- 2nd Prize at CIL Hackathon (2021) among 200 teams all over India.

EXPERIENCE

University of Hamburg (Semantic Systems Research Group) - Hamburg, Germany
Research Intern   Aug 2023 - Sep 2023

- Engineered a Pangu-inspired system enhancing one-hop relation identification between knowledge graph entities, leveraging Bert CLS embeddings for efficient extraction and ranking of candidate pairs.
- Attained 100% accuracy on 200 DBLP QuAD questions, achieving an F1 score of 0.2175 on a 500-question test dataset for Scholarly QALD @ISWC 2023, setting a new benchmark in knowledge graph query answering.
- Mastered sparql, s-expressions, and advanced knowledge graphs, alongside refining semantic relations using NLP models, notably Bert.
- Co-authored and published "BERTologyNavigator: Advanced Question Answering with BERT-based Semantics" in the Joint Proceedings of QALD 2023 and SemREC 2023 (ISWC 2023). Integrated BERT for question answering and significant F1 scores on DBLP datasets. Link: https://arxiv.org/ftp/arxiv/papers/2401/2401.09553.pdf

Resshu Connect Pvt Ltd. (Apna Konnect) – A social media application with an ethnic touch
App Developer Intern   Jan 2023 - Mar 2023

- Achieving over 100+ downloads and a 5-star rating on Google Play Store through user-centric features and bug resolutions in a social networking app developed in a team of 7.
- Spearheaded the addition of profile functionality, deep linking via Firebase, and push notifications, enhancing user engagement and app functionality in a dynamic team of lead software engineers and designers.
- Expanded expertise in React Native and Firebase, contributing to the app's continuous improvement and feature-rich platform.

Shafance Pvt Ltd. – An educational platform tailored to CBSE syllabus.
Web Developer Intern   Oct 2022 - Nov 2022

- Designed and deployed the company's main website, scalable to 1k+ users, with a focus on educational-based UI/UX, employing agile methodology using Git.
- Enhanced customer satisfaction by 30% through collaboration on web development projects, focusing on HTML, CSS, SCSS, Bootstrap, and JQuery. Tailored UI designs to user needs, significantly improving the customer experience and solution delivery.

PROJECT AND RESEARCH

EcommHub - E-Commerce Web Application

- Developed EcommHub, a robust e-commerce platform using the MERN stack, enhancing shopping experiences with features like product reviews, user profiles, and admin panels.
- Worked with MongoDB, Express.js, React.js, and Node.js technologies; streamlined payment processes with the PayPal API, achieving a seamless checkout experience.
- Demonstrated backend proficiency by creating a dynamic database seeder, scaling product and user management capabilities. Link to Project: https://ecommhub.projectsbyshr.in/

BERTologyNavigator: Advanced QA System (Research Contribution)

- Co-authored a significant paper on leveraging BERT embeddings for question answering, published in Scholarly QALD 2023 and SemREC 2023 proceedings, ISWC 2023.
- Designed BERTologyNavigator, integrating knowledge graphs and BERT for advanced QA tasks, achieving impressive F1 scores on the DBLP datasets. Paper Link: https://arxiv.org/abs/2401.09553

Automatic Number Plate Recognition (ANPR) System (Research Contributions)

- Conducted comprehensive research on ANPR systems, emphasizing GPU over CPU performance enhancements and the role of high-resolution cameras in character recognition accuracy.
- Utilized Python, OpenCV, and EasyOCR in developing the system, documenting findings on the impact of technological advancements on ANPR efficiency. Presentation Certificate: https://shorturl.at/dqAK4

SKILLS

- **Programming Languages & Technologies**: Python, C++, C, web designing using HTML, CSS, and JavaScript. MySQL and MongoDB for database management, Figma, and Canva for design, and Microsoft Office suite for productivity.
- **Development Tools & Frameworks**: Redux, React.js, Node.js, Express.js, MongoDB (MERN Stack), Firebase, Git, GitHub, React Native, AWS Machine Learning (Deep Racer), Flask.
- **Data Science & Machine Learning**: Python libraries for data visualization and analysis, including Numpy, Pandas, Scikit-learn, Matplotlib, PyTorch, SPARQL for querying RDF databases, Hugging Face Libraries, and OpenCV.

POSITION OF RESPONSIBILITY AND COMMUNITY

- **IEEE SSIT VIT**: Mentored over 40 students as the Technical Head, fostering a culture of innovation and technical excellence within the society; organized and keynote speaker at CodeConfluence23 with over 100 participants; organized Code2Clone 2.0 with 150+ registrations; organized 10 speaker sessions at HackHorizon on Youtube; promoted Open Source and submitted, maintained, and administrated multiple repositories for HacktoberFest22, HacktoberFest23, and Girls Script Summer of Code'23 as the Technical Head of IEEE SSIT VIT.
- **Project Leadership**: Demonstrated leadership by overseeing 40 projects over 3 years as a bachelor'sstudent at VIT.
- **IEEE WIE:** Senior Core Committee member helping in many IEEE events like WIEnfluence and more. Organized and taught a tech session, Hooked on React'23, with over 100 participants. Collaborated with technical and design domains for multiple event posters and projects.

ACHIEVEMENTS

- 1st Prize at Eco Hack IEEESSIT, VIT (2021) among 50+ teams from VIT, University.
- 2nd Prize at CIL Hackathon (2021) among 200 teams all over India.
- Scholarship Stipend for Bachelor Students University of Hamburg, Germany.
- Mercer Mettl Hackathon 2024 Top50 teams- Gprize among 500+ participants.
- Best delegate (2019, GDG Model UN Conference, Delhi)
- Subject Excellence in English, Social Sciences and Overall Excellence (2018-2019, Presidium School)
- Executive Board (2018, PMUN)
- AWS-Udacity Scholarship for AI programming in Python
- Speaker Session at Code Confluence- Igniting Open Source Innovation by IEEE SSIT VIT(50+ audience)
- Grace Hopper Celebration Scholarship'23 Recipient
- Grace Hopper Celebration Scholarship'24 Recipient
- 2 projects accepted to Girls Script Summer of Code'23; Worked as Project Admin for 2 Projects.

ADDITIONAL

- **IEEE SSIT VIT**: Mentored over 40 students as the Technical Head, fostering a culture of innovation and technical excellence within the society.
- **AnitaB.org**: An active member contributing to the empowerment and growth of women in technology in India.
- **Project Leadership**: Demonstrated exceptional leadership by overseeing 40 projects over three years as a bachelor's student at VIT, showcasing strong project management and team leadership abilities.
- **Interests:** Engages in poetry and writing, enjoys playing the ukulele and an avid follower of stocks and finance.