Rashmi G R

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Education

* ≡ Expected Graduation Year

Year	Degree/Certificate	Institute	CPI/%
2024*	B.Tech (Computer Science and Engineering)	Indian Institute of Technology Kanpur	6.8/10.0
2020	Karnataka PUC Examination (Class XII)	Deeksha CFL PU College, Bangalore	97.0%
2018	ICSE (Class X)	Acharya Pathasala Public School, Bangalore	97.0%

Scholastic Achievements

- Secured **All India Rank 809** in **JEE Advanced 2020** organized by **IIT Delhi** among over **1.5 Lakh** shortlisted candidates
- Secured **All India Rank 1421** in **JEE Mains 2020** conducted by the **National Testing Agency(NTA)** among over **11 Lakh** applicants
- Secured **All India Rank 16** in **COMEDK UGET 2020**, an entrance test for **190+ colleges**, among over **0.5 Lakh** applicants
- Secured **State Rank 29** in **KCET 2020** conducted by the **Karnataka Examination Authority(KEA)** among over **1.5 Lakh** applicants

Summer Internship

Software Development Intern at **Indkal Technologies Pvt. Ltd.** (Official Licensee, **Acer TV**), *Bengaluru* (*May'23- Jul'23*)

Objective	• To build a **product lifecycle tracking** portal using **Django** for intra-company usage of **100+ employees**
Approach	• Devised the **Schema, Gantt views** and automatized the project's stages in relation to inner activities, assigned user tasks • Spearheaded the **UI/UX** design using **Bootstrap**, and **JavaScript**, resulting in a **responsive**, **dynamic** website design • Automated **email notifications** and established an employee **hierarchy model** for approval workflows for subactivities
Result	• Engineered the project on a **PostgreSQL** database using **Django ORM**, **Amazon Cloud RDS** and **S3 cloud** storage • Successfully deployed to an **EC2 instance** using **Nginx** and orchestrated the **AWS load balancers** and **security groups**

Key Projects

- **Frailty Data Analysis and Visualization** | Mentor: **Dr. Soumya Dutta** | *Undergraduate Project* | (*Aug'23- Present*)
  - Systematized the Longitudinal Aging Study in India(**LASI**) data of **73,000+ tuples** into parameter-inclined groups
  - Analysed **grip strength**, **timed walk**, and **balance test** to study various frailty trends using **Numpy**, **Pandas**, and **Matplotlib**
  - Envisaging a **visualization tool** to observe **multidimensional** frailty patterns with financial, geographical, and familial factors
  - Adopting a **cross-generation optic** to produce a biological conclusion on **microbiota** and its influence on **healthy ageing**
- **Precision and Performance of ML models** | Mentor: **Dr. Purushottam Kar** | *Course Project* | (*Feb'23- May'23*)
  - Explored the performance of various combinations of linear models like **LinearSVC**, **LogisticRegression**, and **RidgeClassifier**
  - **Hypertuned parameters** to obtain an **accuracy of 0.95** in linearly implementation of an **Advanced XORRO PUF**
  - Configured a **decision tree learning algorithm** from scratch to **minimize queries** in a Hangman game to achieve a benchmark∼**4**
  - Tested **kernels**, **nearest neighbours**, **deep-nets** and **random forests** to obtain **MAE<0.1** for prediction of O2, NO2 levels.
- **B+ Tree Implementation** | Mentor: **Dr. Arnab Bhattacharya** | *Course Project* | (*Mar'23- May'23*)
  - Implemented a **B+ Tree** in **C++** to realize the benefits of a self-balancing structure for **any database**, irrespective of size
  - Programmed for **CRUD operations** following **OOPS principles** and **Image display** using the **Graphviz** library to visualize trees
  - Extended the project independently to develop a **RESTful API** using **cpprestsdk(Casablanca)** with appropriate **error-handling**
  - Enabled seamless communication through **HTTP requests** from the server with the C++ tree implementation for future deployment
- **Canteen Order Automation System** | Mentor: **Dr. Indranil Saha** | *Course Project* | (*Jan'22- Apr'22*)
  - Structured the development of a **web application** for order automation on **Django** using formal software life cycle documentation
  - Authored **Software Requirments Specification(SRS)** document, **Design** document, **Test** document, and **User Manual**
  - Designed **Use Case Models** and **Test views** to perform unit and beta testing using Unified Modelling Language(**UML**) diagrams
  - Assisted front-end development using **Bootstrap** and discovered bugs in peer projects to simulate the maintenance phase of **SDLC**

Technical Skills

- **Programming Languages:** C, C++, Java, Python, HTML, CSS, JavaScript, GLSL, Haskell, Ruby, Verilog HDL, Bash Scripting, SQL
- **Tools/Libraries/Frameworks:** Git, Django, Nginx, AWS cloud, Figma, React, Node.JS, Bootstrap, AJAX, cpprestsdk, Numpy, Pandas, Matplotlib, Scikit-learn, TensorFlow, OpenCV, WebGL, dlib, imutils, BeautifulSoup, Blender, LaTeX

Relevant Courses

* ≡ Ongoing

Data Structures, Algorithms	Software Dev & Ops	Operating Systems	Database Systems
Computer Organization	Theory of Computation	Linear Algebra & ODE	Discrete Mathematics
Computer Graphics*	Machine Learning	Abstract Algebra	Software Engineering*

Non-technical Internships

- **Content Writer** at **Inhalt Innovations** | *Received a Letter of Recommendation* (*Dec'22- Feb'23*)
  - Researched various topics and conceptualized useful word pieces in line with the **current consumer trends** in a variety of markets
  - Wrote **SEO-optimized** articles adding up to **3000+ words** every day and routinely liaised with the mentor on the quality of articles
- **Subject Matter Expert - Mathematics** at **UnchaAI** (*Apr'21- Nov'21*)
  - Mentored **40+ students** for a period of **8 months** in their Joint Entrance Exam preparation by solving doubts in **Mathematics**
  - Drafted **test papers** regularly to test the students' skills in various topics of JEE-level Mathematics to help them prepare effectively

Extra-Curricular Activities

- Current secretary of **Unmukt, a sexuality and gender diversity forum**, to build a static **showcase club website** (*Jun'23- Present*)
- Completed the **QPR Suicide Prevention Gatekeeper Program** organised by **SPIF** to help recognize suicidal tendencies (*Nov'22*)
- Produced **Canva** designs and aesthetics for various flagship activities as a **secretary** of **book club** and **fine arts club** (*Jun'21- Jun'22*)
- Participated in the **Yoga Intramurals** organized to perform **Asanas** of increasing difficulties leading up to International Yoga Day(*Jun'21*)