

Niranjan Kumawat

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Academic Details

Bachelor of Technology(Honours), Computer Science and Engineering Indian Institute of Technology (Indian School of Mines), Dhanbad, Jharkhand, India CGPA: 8.23	2015-2019
Class XII - All India Senior School Certificate Examination Kendriya Vidyalaya No.1, Air Force Station, Jodhpur, Rajasthan, India Percentage: 95.6%	2013-2014

Work Experience

Samsung R&D Institute India - Bangalore (SRI-B)

Senior Software Engineer April 2021 - Present

- Manage and mentor subordinates to enhance their understanding of the platform.
- Drive and develop new small-scale features for the platform. Integration of 3rd party services.
- Troubleshoot the server's latency performance, anomalous logging behavior, and overall server working.
- Contributed to server development to the privacy framework(Samsung consent, TCP/GDPR, Coppa) and utilized users' consent for personalized service. Responsibility included requirements gathering, architecture designing, implementing RESTful APIs, and end-to-end testing.

Software Engineer

June 2019 - March 2021

- Contributed to sprint planning and developed projects following Agile methodologies.
- Contributed to designing and developing waterfall models for the Samsung Ad Exchange Platform. Proposed an efficient heuristic auctioning algorithm for ad podding to enhance revenue(a predicted increase of 30%) and consumer engagement in the OpenRTB setup.
- Supported QA with deployment, testing, and bug resolution.
- Tested and improved the test coverage of the existing code base; this included unit testing, integration testing, and server performance testing.
- Collaborated in designing and developing a logging framework for the server, considering business reporting, and production debugging requirements.
- Studied and experimented with existing state-of-the-art NLP solutions and other algorithms, and improved the language identification accuracy of very short texts(less than 10 words) by approximately 8%.

Samsung R&D Institute India - Bangalore (SRI-B)

May 2018 - July 2018

Internship

Project: Application of Recommendation Systems on Click Through Rate(CTR)

Researched and experimented with collaborative filtering, content-based, and hybrid models to understand users' interests based on their past click history and recommend new android applications.

Research Experience

Programmatic optimization of ad pods for maximizing consumer engagement and revenue.

The research project is supported by SRI-B.

Formalized optimization objective as an NP-hard problem, and studied extensively the state-of-the-art solutions of Pointer Networks and DP to solve it. Additionally, proposed a novel heuristic-based approach for solving the problem and recorded observations. (The research paper is in progress.)

Academic Projects

Detection of anomalous systems in interconnected computer systems

The objective was to study, model, and compare state-of-the-art anomaly detection supervised learning algorithms in terms of their accuracy to detect outliers. Experimented with Naive Bayes, SVM, and Deep NN model on data set from UCI Machine Learning repository and reported Precision, Recall, and F1-Scores.

Application of Reinforcement Learning on share trading

The project was an application of reinforcement learning. Developed a model better than the traditional “Hold and Buy” strategy to gain the maximum short-term profit. Deep Q-learning was used to obtain satisfactory results. The model performed 11 times better predicting actions(selling, buying, and holding).

IntegraVita: A web application for the health sector.

During a 36-hour long hackathon, I collaboratively developed a web application to help users access and book nearby health services like doctor appointments, medicine delivery, blood donor, and diagnostic centers. The project currently resides [here](#).

Solving linear equations using Bacterial Foraging Optimization(BFO).

Assessed, experimented, and analyzed the applicability of the BFO algorithm on linear equations. An input sample of 1000 linear equations with each having 3 unknown variables was used, and an overall RMS error of 0.034 was observed.

Technical Skills

Languages: C, C++, Java, Python(NumPy, Pandas, OpenCV, Matplotlib, Keras, scikit-learn), HTML, CSS, SQL, Swagger.

Frameworks: Vert.x, Mockito, PowerMockito, pytest, Apache Log4j2, Flask.

Platforms and Services: nGrinder, AWS - LB, EC2, S3, Lambda, KMS, Secrets Manager, RDS, Redis.

Others: LaTeX, Git, Jenkins.

Achievements

- Awarded “**2021 Samsung Excellence Awards Q3**” under the “Super Tech Award” category.
- Awarded “**2020 Samsung Citizenship Award Q4**” under the “Commitment Award” category.
- Secured 2nd position in “**Global Samsung Ads Hackathon - 2020**” for building innovative solution for generating ad creatives using style transfer, ethnicity transfer, and DeepFace technologies.
- Awarded thrice “**Samsung Certification of Appreciation(Spot Award)**” for development contributions.
- Awarded “**SWC Pro Certification**” for showcasing proficiency in algorithms and data structures.
- Google Android Basics India Scholarships - presented by Udacity.
- Senior Secondary School Topper. (12th grade)
- 3rd City rank (70th International rank) in 10th International Informatics Olympiad 2013.

Certifications

- Machine Learning by Stanford University on Coursera. [Certificate](#)
- Neural Networks and Deep Learning. [Certificate](#)
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization & Optimization. [Certificate](#)

Extracurricular Activities

- An active member of “aBhAy Dramatics Club” at IIT-ISM, Dhanbad. [Certificate](#)
- Organized “Udbhav” - a CSE society's festival of IIT-ISM, Dhanbad.
- Photography and videography.