Animesh Kumar Sinha

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EDUCATION

- **Indian Institute of Technology Patna** — Patna, India
  *B.Tech in Computer Science and Engineering. **CPI: 8.49*** — *July 2020 - May 2024*
- **Modern Vidya Niketan, Sector - 17** — Faridabad, India
  *Class XII, CBSE. **Percentage: 95.0**%* — *April 2019 - March 2020*

EXPERIENCE

- **Amazon** — Bengaluru, India
  Software Development Engineer Internship — *May 2023 - July 2023*
  - Designed **Integration tests** for ingestion, storage and retrieval of pricing issues, thus creating an autonomous testing infrastructure and reducing manual verification by **72%** for product deployment.
  - Automated **Locale testing** by querying Amazon String Translator (AST), developing the validation logic and updating logs, resulting in an efficiency increase of up to **14%**.
  - Gained industrial exposure to **Java, Node.js, JavaScript, AWS Cloud (Lambda, DynamoDB, S3)**.

PROJECTS

- **Mobile Application for Electric Vehicle Routing | Link** — **Source Code**
  Dr. Samrat Mondal (CSE Department, IIT Patna) — *August 2023 - Present*
  - Built an **interactive mobile application** for EV routing using **JavaScript and React Native**.
  - Employed heuristics to reduce travel time and carbon emissions by **up to 4%**.
  - Deployed a **scalable backend infrastructure** using **Express.js, Node.js and MongoDB**.

- **Real-time Web-based Chat Application using Ratchet** — **Source Code**
  Dr. Mayank Agarwal (CSE Department, IIT Patna) — *April 2023 - May 2023*
  - Developed a **full stack** web application using PHP, MySQL, HTML and tested with 100+ live users.
  - Added **real-time** support for Private Chat, Group Chat and File Sharing using Ratchet WebSockets.
  - Enhanced user experience with features: Push Notifications, Profile Customization, Last Seen, Dark Mode.

- **Computational Offloading Optimization in UAV Mobile Edge Computing** — **Source Code**
  Dr. Rajiv Mishra (CSE Department, IIT Patna) — *November 2021 - May 2022*
  - Deployed DDPG-based framework using **Reinforcement Learning** to minimize the processing delay among UEs in UAV-assisted MEC systems with subject to constraint on energy consumption.
  - Optimized the workflow with TD3: **Twin Delayed DDPG**, improving the convergence rate by **17%**.

ACHIEVEMENTS

- Secured first rank in the **OpenAI hackathon** held by **Microsoft** at IIT Patna, showing Azure skills.
- Secured a rank among the top 110 teams out of 7000+ in **HackOn with Amazon 3.0** hackathon, 2023.
- Achieved a global rank of **660** in **Google Code Jam** Round A, 2023.
- Achieved a global ranking of **23rd** out of 3500+ competitors in Codechef Starters September 2021.
- Attained the highest rating of **1649** and the title of **Expert** on **Codeforces**. **Profile:** Topazz
- Ranked as a **5-Star Coder** on the **Codechef** platform with a peak rating of **2104**. **Profile:** topazz
- Attained a rank of **2463** in JEE Advanced 2020 out of 1,60,000 students all over India.

SKILLS

- **Programming Languages:** C, C++, Golang, Python, Java, JavaScript, PHP, SQL.
- **Tools/Frameworks:** Node.js, React.js, AWS, Azure, MySQL, MongoDB, GitHub, Docker, Linux.
- **Core Courses:** Data Structures, Algorithms, Operating Systems, Computer Networks, Database Management System, Computer Security, Computer Architecture, Secure System Design, Object-Oriented Programming.

EXTRA-CURRICULAR ACTIVITIES

- Managed 30+ intra-college and open quizzing events as the Sub-Coordinator of Quiz Club IIT Patna.