Atharva Phadnis

📞 + 91 7350950005 ✉ asphadnis1@gmail.com 🔗 Linkedin ⭘ Github

Research Interests

- Program Synthesis
- Automated Reasoning
- Programming Languages
- Neurosymbolic AI
- AI for Science
- Automata Theory
- Interpretable AI
- Distributed Systems

Education

Birla Institute of Technology and Science Aug. 2018 – June 2022
Bachelor of Engineering, Computer Science *CGPA: 8.51/10 (Goa, India)*

Technical Skills

Programming: C/C++, Python, Java, SQL, Rust
Libraries and Frameworks: PyTorch, NumPy, Pandas, Spark, Spring
Tools & Technologies: AWS, Docker, Git, Linux, LaTeX

Research Projects

Program Synthesis

- Led a research project under direction of Professor Anup Mathew, gaining insights into the program synthesis and associated formal methodologies
- Worked on inductive and syntax-guided techniques, observing how specific designs of domain-specific languages affected the synthesis process
- Investigated the application of machine learning techniques to the synthesis problem, using neural networks to rank partial programs, guiding the search

Experience

Oracle July 2022 – Present
Applications Engineer *Bengaluru, Karnataka*

- Participated in active development for a cloud-based platform, designing and managing database schemas, clusters, and integrations
- Successfully performed performance-enhancing data modeling using Django and SQL and leveraged the Oracle Cloud Infrastructure services to deliver solutions at scale
- Designed industry-standard RESTful APIs and optimized schema and query generation for heterogeneous data to ensure seamless integration between various supply chain applications

Amazon, Inc Jan 2022 – June 2022
Software Development Intern *Bengaluru, Karnataka*

- Implemented various features for a Spring-based distributed workflow orchestration engine that represents internal business logic of many Amazon applications as a state machine
- Successfully analyzed the state transition logic and delivered a capstone feature that expanded the engine's event processing functionality and enabled the encapsulation of newer, previously unavailable use cases
- Employed and coordinated various AWS services like ECS, DynamoDB, S3, SQS etc. to accomplish the development and rolling out of the feature globally

Oracle May 2021 – July 2021
Applications Engineer (Intern) *Bengaluru, Karnataka*

- Worked on handling and processing the data generated by a B2B, campaign management application, a part of the Oracle Cloud Suite
- Conceptualized and constructed a Spring powered, data processing application and accompanying integration API that performs data aggregation and effectively visualizes the assembled data set
- Leverage this data to deliver various insightful metrics and intelligence at scale to track the progress of campaigns and motivate future decisions and changes

Relevant Coursework

Principles of Programming Languages, Theory of Computation, Discrete Structures for Computer Science, Logic in Computer Science, Foundations of Data Science, Data Structures and Algorithms, Linear Algebra, Probability and Statistics, Quantum Information and Computing