JASH AMBALIYA

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</> CodeChef | </> LeetCode | </> Codeforces | 📞 +91 8849066219

EDUCATION

Uka Tarsadia University (UTU), Surat, Gujarat, India — 2023 – 2027 (Expected)
Bachelor of Technology in Computer Science and Engineering
CGPA: 9.07/10.0

OPEN SOURCE CONTRIBUTIONS

SciML & JuliaLang Ecosystem — Julia, Mathematics

- **CurveFit.jl** [PR]
  Integrated `StatsAPI` to expose critical statistical metrics (Variance-Covariance Matrix, Standard Error) for nonlinear least squares solutions, bringing feature parity with major scientific libraries.

- **Symbolics.jl** [PR]
  Implemented an automatic translation layer to bridge **Symbolics.jl** with **SymPy**, creating wrapper functions that allow users to leverage SymPy's powerful solvers (integrals, limits) directly within Julia. **(Awarded $300 Bounty)**

- **NonlinearSolve.jl** [PR]
  Refactored automatic differentiation (AD) wrappers to improve compatibility with `DifferentiationInterface`, optimizing solver performance for complex numerical tasks.

Flexile (Contractor Management & Payments) — Ruby on Rails, PostgreSQL

- **Payment Notification System** [PR]
  Engineered a failure notification system that captures `WiseError` exceptions during payment processing and triggers automated, detailed email alerts to contractors, significantly improving transparency. **(Awarded $2,500 Bounty)**

- **Payment Reconciliation** [PR]
  Implemented logic to handle **Wise** payment refunds and dividend cancellations, ensuring the system correctly updates payment statuses from "processing" to "failed" when external cancellations occur. **(Awarded $2,500 Bounty)**

Coder (Cloud Development Environments) — Terraform, HCL

- **Registry Modules** [PR]
  Developed and merged the **PGAdmin** module into the Coder Registry, allowing developers to deploy PostgreSQL administration interfaces instantly within their cloud workspaces. **(Awarded $50 Bounty)**

TECHNICAL PROJECTS

Group Policy Object manager for Windows - Smart India Hackathon 2024 [GitHub]
A Windows application developed to generate and manage customized Group Policy Objects (GPOs) aligned with CIS security benchmarks. Selected as a Finalist at Smart India Hackathon 2024.
.NET, C#, WPF

EXPERIENCE

Technical Content Writer Intern, GeeksforGeeks (Remote) — March 2024 – March 2025

- Authored technical articles on **Deep Learning** and **Pandas**, breaking down complex engineering concepts for a global developer audience.
- Refined existing documentation to improve technical accuracy, directly impacting the learning experience of thousands of readers.

AWARDS & ACHIEVEMENTS

- **Global Rank 17** in CodeChef START156C (Div 3) among **3,873** contestants.
- **Smart India Hackathon (SIH) 2024 Finalist:** Selected for the grand finale of India's premier hackathon.
- **Global Rank 930** in AtCoder Beginner Contest 371 among **12,905** contestants.
- **5-Star Badge in C++** and **Problem Solving** Certification on HackerRank.
- **University Rank 5** on GeeksforGeeks Institute Leaderboard.

TECHNICAL SKILLS

- **Languages:** C++, Python, Julia, Ruby, JavaScript/TypeScript, SQL
- **Core Concepts:** Data Structures & Algorithms, System Design, OOP, Statistical Computing
- **Frameworks & Libraries:** React.js, Rails, TensorFlow, Git, Linux, Docker, Terraform