[aadeshdeshmukh25@gmail.com](mailto:aadeshdeshmukh25@gmail.com) +91-8766453690 <https://github.com/Aadesha>

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| AADESH   * Skills: C/C++, Python, Julia, Unix/Linux, SQL, Shell Script, Verilog, Git. * Languages: English, Hindi, Marathi |  |
| **EXPERIENCE**  [**Julia Season of Contribution**](https://julialang.org/blog/2019/05/jsoc19)**(JSoC) (language Julia)** May 2019 - Aug 2019  (Code of Conduct same as Google Summer of Code)   * Implemented [Range over-approximation algorithm](https://github.com/Aadesha/LazySets.jl/pull/3) which improves bounds over Range of Taylor Models By 70-95% using TaylorMode to Zonotope conversion. * Developed [RangeEnclosures.jl](https://github.com/JuliaReach/RangeEnclosures.jl) a Julia Package which bounds polynomials using various methods, which was initiated by my [PR](https://github.com/JuliaIntervals/TaylorModels.jl/pull/50) to TaylorModels.jl. * Implemented [Branch and Bound(BNB)](https://github.com/JuliaReach/RangeEnclosures.jl/pull/7) and Linearly dominated Bound(LDB) algorithm. BNB can minimise relative precision up to 50% and achieve relative precision [1e-5, 1e-5] in most of the cases. Debugged porting validated\_int to TMJets algorithm. * Created Proof of Concept for Domain ContractionMethods using Interval Constraint Programming.   **National Institute of Technology, Tiruchirappalli -Intern (Python, NLTK)** Nov 2018 - Jan 2019   * Taught myself Python, Pandas, NLTK and sci-kit learn. (natural language processing) * Implemented naive Bayes classification algorithm, over text news from different sources. * Analysed data by plotting graphs using Ipython, cleaned data to feed in ML algorithms.   **Personal project - Accelerating optimization via machine learning** Mar 2019 - Apr 2019   * Implemented surrogate [optimization algorithm](https://github.com/Aadesha/sur_opt/blob/master/surrogate_optimization.jl) with the help of regression using RBF. * [Parameter of ODEs can be predicted](https://github.com/Aadesha/sur_opt/blob/master/para_est.jl), In case of lotka volterra equation we found out that parameter is predicted with an accuracy of 80%. * Surrogate match the actual ODE which can be visualized by [graphs](https://github.com/Aadesha/sur_opt/blob/master/Screenshot%202019-03-25%20at%2011.42.45%20PM.png).   **Leadership roles and scholastic achievement**   * 7th in regional (Scholarship) [HHS Exam](https://www.mscepune.in/#) among 20,000 student. * Directed short film, managed a team of six fixed spots to shoot and workflow planning. * Caption of High school Kabadditeam, bagged 2nd place in division level. (total teams 30)   **EDUCATION**  **Indian Institute of Information and Technology, Tiruchirappalli** July 2017 - May 2021Computer Science and Engineering  **CGPA - 7.75**  (Current GPA - 8.09)  **Key courses -**  Software Engineering, Internetworking Protocols(Socket ProgrammingC and Java*),*  Database Management Systems*(*SQL, XML*)*, Computer Architecture -Current Courses.  Data structures*(*C\C++ Lab), Introduction to Algorithms*(*C\C++ Lab*)*, Probability Theory, Principles of Operational Research, Operating Systems*(*Unix\Linux Lab*)*, Data Communications and Networking - completed courses*.*  **Sports -** Swimmer**,** 2nd place in Volleyball at Prothymas(IIIT Sports events).  **College clubs -** Member of Genesis(Robotics club), developed robotic arm(2D) in group of three.  Member ofReel Club(Short film).  **Narayana Junior College (High school)**  **Percentage - 94%** |  |
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