Darshan P.

Bangalore, Karnataka

✉ drshnp@outlook.com | GitHub | Portfolio | MathStackExchange | LinkedIn

EDUCATION

Govt. College of Engineering, Jalgaon, *Maharashtra, India*

Bachelors of Technology in Mechanical Engineering *Aug. 2017 – Apr. 2021*

WORK EXPERIENCE

Wolfram Alpha, *Remote*

Freelance Developer (Mathematica + LaTeX) *Aug. 2024 – Nov. 2024*
- Built Mathematica algorithms and LaTeX templates for symbolic computations, cutting processing times by 25%.

ProHuman Technology Pvt. Ltd., *Bangalore, India*

Software Developer *Mar. 2024 – Jul. 2024*
- Developed dashboards and automation scripts (Bash, Python) on Azure/GCP, reducing inefficiencies by 30% and saving 20 hrs/week.

Autodesk, *Remote*

Freelance Developer (Linux + Cloud) *Aug. 2023 – Dec. 2024*
- Deployed and automated AWS/Azure solutions for Linux systems, boosting reliability and speeding incident response by 20%.

Tata Consultancy Services, *Pune, India*

System Developer (Python + SQL + Bash) *Jun. 2021 – Jun. 2023*
- Built Python/SQL/Bash dashboards and reporting tools across EMEIA/APAC, automating finance workflows and improving compliance.

GeoGebra, *Remote*

Module Developer Intern (Python + TypeScript) *Jun. 2020 – Dec. 2020*
- Created Python scripts and tests for interactive geometry modules, enhancing performance and user engagement.

SKILLS & OTHERS

Programming Languages: Assembly (x64 Architecture), BASIC, Bash, C/C++, Fortran, Go, Haskell, Java, JavaScript, Julia, LaTeX, Mathematica, Markdown, Python, R, Rust, Solidity, OCaml

Web Development: Apache, BootStrap, CSS, Django, HTML5, Nginx Server, PHP, Tailwind

Data Analysis & Machine Learning: Matplotlib, NumPy, PyTorch, pandas, scikit-learn, SciPy, SQL, SymPy, TensorFlow

Version Control & Cloud: AWS, GCP, Git, MS-Azure

Operating Systems: Blockchain, CLI, GNU/Linux, Unix-like systems

Mathematics: Analytical Geometry, Calculus, Linear Algebra, Macroeconomics & Microeconomics, Number Theory, Special Functions

PROJECTS

PyPI Projects,

Topic: Collection of various projects developed and available on PyPI
- Explore my PyPI profile for projects including Dropit, Authf, EnigmaCifra, and Xpost, among others.

Web Development Projects,

Topic: Developed dynamic websites for Bayesian Corp., Assembly Election Campaign, and personal portfolio
- Engaged in web development projects enhancing digital presence for various clients.

Halley's Comet Orbital Evolution,

Topic: Analyzed comet path and gravitational effects projecthalley.org
- Analyzed the trajectory and gravitational dynamics of Halley's Comet over successive orbits.

RESEARCH & PUBLICATIONS

Quotient Function Summation,

Topic: Recursive formula for partitioning integers
- Developed a novel recursive approach to the classic problem of integer partitioning, providing a more efficient computation method and deeper insights into the number theory underpinnings of partitions.

Fundamental Theorem of Algebra,

Topic: Alternative proof focused on polynomials
- Presented an innovative proof of the Fundamental Theorem of Algebra using a less traditional method that emphasizes the geometrical and topological aspects of polynomials.

Mixed Traffic Impact on Roads,

Topic: Studied mixed traffic effects and dynamic units
- Analyzed the dynamics of mixed traffic flow on urban roadways, highlighting the interactions between different vehicle types and proposing solutions to optimize traffic management and reduce congestion.