Varshitha Ramakumar

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Personal Statement:

As a Mechanical Engineering student with a strong commitment to continuous learning, I am eager to apply my diverse skill set and solid work ethic to new challenges. With technical expertise in CAD design and Python, complemented by a creative problem-solving mindset, I am confident in my ability to contribute effectively to any team. I am driven by opportunities that allow me to expand my skills and grow professionally.

Work Experience

- **Student Researcher(Hi-wi)– Karlsruhe Institute of Technology**   **May 2023-Present**
  As a Hi-Wi in the Institute of Applied Materials– Material Science , I work on X-ray Diffraction Peak fitting of various metallic alloys using the new P61A software, built using Python.
- **AutoCAD Essentials-Internship**   **Jan 2022–Feb 2022**
  Successfully completed an Internship on AutoCAD Essentials, supervised by an AutoDesk– certified Associate. For the final project, I made a layered 2D design of a screw jack.

Education:

Karlsruhe Institute of Technology (Karlsruhe, Germany)

- **BS Mechanical Engineering(International)**   **2022**
  Currently in my fifth semester, and I have taken courses on various aspects of mechanical engineering, such as Mechanical Design, Advanced Mathematics, Electrical Engineering, Thermodynamics, and Engineering Mechanics – Statics and Dynamics, manufacturing technology and computer science.
  I've been working on complimenting my university education through my Job as a student researcher, and personal projects.

Vidya Mandir Sr Secondary School (Chennai, India)

- **All India Senior School Certificate Examination (Grade12)– 95.8%**   **2021**
  Subjects taken in 12^{th}Grade: Mathematics, Physics, Chemistry, Computer Science (Python), English
- **All India Secondary School Examination (Grade10)- 95.6%**   **2019**
  Subjectsstudiedin10^{th}Grade: Mathematics, Science(Physics, Chemistry, Biology), Social Science(Geography, History, Civics, Economics), Sanskrit, English.

Project Experience:

- **Mechanical Design**   **2022**
  Designed a 3-Dimensional model of a compressor impeller using AutoDesk Fusion 360.
- **Advanced Railway Ticketing System–Vidya Mandir Hr.Sec.School**   **2020–2021**
  Software(s)used–Python, TKinter(for User Interface), SQL
  Recreated the Indian Railway reservation system, and added innovative features like partial ticket cancellation and seat re-allocation as a group project.
  Won the second place in the project competition organized by my school.
- **Stellar Motion of Stars–MATLAB Onramp**   **2023**
  Plotting and analyzing the position and velocity of a star using the concept of red-shifting.

Certifications and Awards:

- **Advanced CAD/PDM Certification–Institute of Product Engineering, KIT**   **Dec.2023**
  Built a planetary gearbox that inputs torque from a motor using a pulley and belt system, constructed
  it using Top-Down approach, and PDM Windchill feature of PTC Creo Parametric 8.0, as a team project.

- **MATLAB On ramp Certification–MathWorks**   **Dec .2023**
  Learned the basic commands of MATLAB, including importing and analyzing data and
  plotting graphs, and made use of all these commands in a final project.

- **Basic CAD Certification–Institute of Product Engineering, KIT**   **July 2023**
  Created multiple components of a gearbox, such as output shaft and flange, according to specific
  dimensions, and assembled them with the rest of the gear system, using PTC Creo Parametric 8.0.

- **Distinction + Merit card–Vidya Mandir Sr. Sec School**   **2011–2020**
  Awarded by my school for academic excellence.

Skills:
Softskills: Quick learner, attention to detail, Strong Leadership ability, Public Speaking, Active listener,
Strong communication, Polyglot, Diplomatic
HardSkills: Python, SQL, PTC Creo Parametric, AutoCAD, Fusion360, Java, MATLAB, LTSpice.

Languages:
Professional Proficiency– English, Hindi, Tamil, Telugu, Kannada
Elementary Proficiency – German (B1)