

# VENKATA MUKUND KASHYAP YEDUNUTHALA

## Student

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🌐 <https://www.mukund-yedunuthala.de>

## PERSONAL INFORMATION

**Name** Venkata Mukund Kashyap Yedunuthala  
**Address** Halsbrücker Str. 12, 09599 Freiberg.  
**Birthday, -Place** 16.07.1997 in Warangal, Telangana, India.  
**Citizenship** Indian

## EDUCATION

### M.Sc. Computational Materials Science

#### Technische Universität Bergakademie Freiberg

📅 10/2019 - Present

- Expected graduation in Spring 2024.

### Bachelor of Engineering in Mechanical Engineering

#### Chaitanya Bharathi Institute of Technology

📅 08/2015 - 07/2019 📍 Hyderabad, Telangana, India

- First class with distinction

GPA

8.6 / 10

## EXPERIENCE

### Student research assistant (HiWi)

#### TU Bergakademie Freiberg

📅 08/2023 - Present 📍 Freiberg, Germany

Institute for Numerical Mathematics and Optimization

- Domain decomposition methods

## PROJECTS

### Modeling of radiative heat-exchange using finite element method

📅 05/2022 - 11/2022 📍 TU Bergakademie Freiberg

Solid mechanics | Finite Element Analysis | Python

- Complete implementation of finite element model and Newton solver in Python using NumPy, matplotlib.
- Documented using Sphinx module.

### Gradient Boosting Machine with Local Regression to predict material properties.

📅 10/2021 - 04/2022 📍 TU Bergakademie Freiberg

Machine Learning | Ensemble methods | Python

- Implemented in Python using NumPy, Matplotlib.
- Accessed REST API of The Materials Project for data and documented using Sphinx.

### Image captioning using reinforcement learning

📅 11/2021 - 02/2022 📍 TU Bergakademie Freiberg

Machine Learning | Deep Reinforcement Learning | Python

- A team project to generate captions for images using policy network - reward model.
- Implemented in Python using TensorFlow, Pandas, Jupyter and Matplotlib.

### Image processing using MPI

📅 10/2020 - 03/2021 📍 TU Bergakademie Freiberg

High Performance Computing | Parallel Processing | C++

- Implemented in C++ to perform a scalability study on university's high performance computing cluster.
- Documented using Doxygen.

## CERTIFICATIONS

### Goethe Zertifikat B1

German language certificate issued by Goethe Institute.

### Deutsch Kommunikation in Studium und Beruf

TU Bergakademie Freiberg, 2022. Soft skills course in German.

## SKILLS

### Programming

Python

C++

Rust

Fortran

Matlab

### Libraries / Modules

NumPy

Matplotlib

Sphinx

Doxygen

CMake

MPI

OpenMP

### Others

Git

LaTeX

Markdown

Linux

HPC cluster

ABAQUS

## LANGUAGES

Telugu  
Native



English  
Proficient



German  
Advanced (B2)



## ACHIEVEMENTS

### PRACE Summer of HPC 2021

Selected to participate in Partnership for Advanced Computing in Europe's initiative called Summer of HPC to enhance skills in High Performance Computing.

## STRENGTHS

Teamwork

Flexibility

## PASSIONS

Gaming

Photography

Model United Nations