

Curriculum Vitae

Abhishek Dhiman

Personal details

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GitHub Profile: <https://github.com/sigmasix09>

Education

PhD Research Associate at Brandenburg Technical University (BTU) **Cottbus, Germany**

Topic: [Virtual Engine Development Using Artificial Intelligence Methods \(VIT-VI\)](#) Nov 2024 to Present

Partners: Rolls-Royce Deutschland (RRD), Brandenburg Technical University (BTU), Technische Hochschule Brandenburg (THB), Friendship Systems (FS), Technical University Berlin (TUB)

Keywords: CFD data compression, Neural Networks (NN) and AutoEncoder (AE), Interactive Data Visualization in VR, AI integration, In-Situ framework for CFD application, ParaView and Catalyst

Master Thesis (MSc Aeronautical) at Siemens Energy AB

Finspang, Sweden

Topic: [Nearest Neighbour Search Method for 3D Data Mapping of CFD Data](#)

Jan 2024 to June 2024

Heat transfer analysis, ABAQUS subroutine and FORTRAN 95 programming, search algorithm development, approach compatibility for cluster level computation.

Master of Science in Aeronautical Engineering (2 years, 120 credits)

Linköping, Sweden

[Linköping University, Sweden](#) (abhdh352@student.liu.se), [Master's degree](#)

August 2022 to June 2024

Bachelor of Aeronautical Engineering, [Bachelor's degree](#)

Bengaluru, India

[Dayananda Sagar College of Engineering](#) [**Grade:** 74.30 % **CGPA:** 7.82 / 10.0]

August 2014 to July 2018

Thesis: "[Shockwave Boundary Layer Interaction & Assessment of Passive Flow Control Device](#)".

Professional Experience

Accenture

Bengaluru, India

Senior Software Engineer: Python Developer (Google Cloud Platform)

June 2021 to August 2022

- Development of Flask REST APIs in SCRUM methodology or framework.
- Querying GraphDB using SPARQL query as the API response for CRUD operations.
- Assisting and enhancing the RDF ontologies development for large medical datasets.
- Multitasking: Code vulnerabilities rectification, product releases and skill upgrading.
- Backend development and enhancement of Data Catalog APIs and creation of API wrappers.
- Incorporating HTTP security of REST APIs and wrappers to mitigate security vulnerabilities.
- Code profiling and analysis to increase performance and enhance API response time.
- Team building activities, user stories creation and KT sessions for team members.
- Code deployment and development of Dead Lettering Queue (DLQ) i.e. GCP Pub/Sub.

Software Engineer: Test Engineering Analyst

August 2018 to June 2021

- Management and leading the web automation for Accenture INTIENT Platform
- Achievement of more than 50% automation for the corresponding release.

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- Generalization of automation code, increasing team efficiency and reducing delivery time.
 - Automation employee training status verification, significantly reducing manual efforts.
 - Designing modular automation code for complex automation flows and reducing delivery time.
 - Professional communication skills and display of team building and leadership qualities skills.

Professional Skills

Technical Skills: Python, MATLAB, FORTRAN, PyTorch, Machine Learning, Neural Network, Data Compression, AutoEncoder, Distributed ML Training, High Performance Computing (HPC), In-Situ In-Transit Paraview, Computational Fluid Dynamics (CFD), Analytical and Statistical skills, Data Science, Numpy, Pandas, Software development, SCRUM methodology, Python Backend Developer, Graph and Cloud Databases, Python-Flask, Rest APIs, Virtual reality (VR), Web automation

Softwares and Tools: Ansys Fluent, ParaView Kitware, ANSA, MATLAB, ABAQUS, Graph DB, VSCode, GCP and IBM cloud, Jupyter Lab, GitHub, JIRA Atlassian

Certifications

Digitalization in Aeronautics and Space: Professional Certificate (Verified)	Bengaluru, India
Authorized by Technical University of Munich, COURSERA	July 2021 to September 2021

IBM Data Science: Professional Certificate (Verified)	Bengaluru, India
Offered by IBM, COURSERA. Duration (11 months)	April 2021 to July 2021

Project: https://github.com/sigmasix09/Coursera_Capstone

ENGR2000X: A Hands-on Introduction to Engineering Simulations (Verified)	Bengaluru, India
Developed by Cornell University, EDX	November 2020 to February 2021

Python: Beyond the Basics, Pluralsight.	Bengaluru, India
Python Programming, Best Practices. Duration (7.5 hours)	October 2020 to January 2021

Mastering Ansys CFD (Level 1), Udemy.	Bengaluru, India
Ansys Fluent, ICEM CFD, CFX, Tech Plot. Duration (20 hours)	August 2020 to October 2020

Probability and Statistics in Data Science using Python(Verified)	Bengaluru, India
Prepared by UCSanDiegoX, EDX. Duration (120 hours)	May 2020 to August 2020

Python Developer: Zero to Mastery, Udemy.	Bengaluru, India
Conducted by Andrei Neagoie. Duration (30.5 hours)	January 2020 to May 2020

Introduction to Programming with MATLAB, Coursera.	Bengaluru, India
Offered by Vanderbilt University, Nashville. Duration (35 hours)	November 2019 to February 2020

Professional in Product Design and Analysis, CADD Centre. (ID: M160892607)	Bengaluru, India
Catia V5, Solidworks, Ansys Workbench, GD & T workshop.	September 2016 to August 2017

Hobbies and Interests

Badminton, Cooking, Long walks, Watching Anime