

# Dileep Nackathaya

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## EDUCATION

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- **North Carolina State University** Raleigh, NC, USA  
*Master of Science in Mechanical Engineering; GPA: 3.75/4.00*  
*Research area: Computational Fluid Dynamics (CFD) analysis of turbulent combustion*  
Aug 2010 – Dec 2012
- **Visveswaraya Technological University** Belgaum, India  
*Bachelor of Engineering in Mechanical Engineering; Grade: First Class (74%)*  
Sep 2006 – Jul 2010

## EXPERIENCE

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- **Cactus Communications** Remote (India)  
*Editorial Reviewer; Associate Editor; Senior Associate Editor*  
Jan 2022 – Dec 2022
  - **Scientific Editing and Reviewing:** Edited, formatted, and performed edit quality checks on more than a thousand research manuscripts in MS Word, LaTeX, and PDF formats. Focused on improving language, structure, logic, and flow in manuscripts prepared for renowned journals such as Nature and those by Elsevier, Wiley, Science, ACS, RSC, AJP, SPIE, among others.
  - **Mentorship:** Mentored new editors and identified existing editors with considerable potential.
  - **Screening:** Screened manuscripts from critical corporate client segments for potential issues and determined remedial measures.
- **John Zink Hamworthy Combustion** Tulsa, OK, USA  
*Computational Fluid Dynamics Engineer, R & D Group*  
Jun 2013 – Aug 2017
  - **Simulation and Analysis:** Performed CFD analyses of combusting flows in industrial burners, flares, thermal oxidizers, and vapor recovery systems. Prepared customer reports on findings of these analyses.
  - **Product Development:** Leveraged data from CFD simulations and analyses to provide insights on designing new products and improving existing ones.
- **North Carolina State University** Raleigh, NC, USA  
*Graduate Research Assistant, Computational Combustion and Energy Sciences Lab*  
Jan 2012 – Jul 2012
  - **Numerical Simulation and Analysis of Reacting Flows:** Used the Pencil Code, an open-source MPI code written in Fortran, for direct numerical simulation (DNS) of auto-ignition in hydrogen-air mixtures to study the effects of turbulence intensities and length-scales on flame characteristics as a part of Master's thesis research.

## CONTINUOUS LEARNING

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- **Projects and coursework** Udupi, India  
*Progress documented on LinkedIn and GitHub*  
Jan 2018 – Dec 2021
  - **Science and Mathematics Courses:** Computational Fluid Dynamics using FVM, Differential Equations, Advanced Fluid Mechanics, Numerical Methods, Vector Calculus for Engineers, Linear Algebra
  - **Statistics, Data Science, and Programming:** Completed a year long MicroMasters program in Statistics and Data Science with certificate courses in probability theory, statistics, machine learning, and data analysis offered by MIT on edX between 2018 to 2019.
  - **Computational fluid dynamics simulations on open-source codes:** Performed CFD simulations using OpenFOAM with geometries and meshes created using open-source packages.

## SKILLS

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- **Editing tools:** MS Word, MS Excel, MS PowerPoint, LaTeX, Adobe Reader DC
- **Operating systems:** MS Windows, Linux
- **Programming and Scripting Languages:** Python, R, Matlab/GNU Octave, C, Fortran, Shell