

## Pinak Bhuban

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### EDUCATION

**Texas Tech University**, Lubbock, Texas  
*Bachelor of Science, Mechanical Engineering*  
*Minor in Mathematics*  
*Dean's Honor List 2020*

Graduation: May 2023

### SKILLS

- **3D modelling and manufacturing** 2D drawing with **Solid works, Inventor, AutoCAD, CATIA V5, Blender.**
- **CNC machining** and CAM with **Fusion 360**, with GD&T.
- Native **English** and **Hindi** speaker, with elementary proficiency of **German**, **Japanese**, **Bengali**.
- Numerical methods and data analytics using **MATLAB and Python**, Proven **Front-end, HTML, CSS, JavaScript** proficiency. C++, C# high school proficiency.
- Building analyzing, testing, fabricating **FSAE** car
- Effective **reporting, summarizing**, drafting, making **data driven** and creative choices.
- **MS Office Tools** (Excel, PowerPoint, Word, Access).
- Machining with common **machine shop, power & hand tools** (lathe machine, milling machine, torque wrenches, drill machine, band saw, grinder).
- **FEA, CFD** using **Ansys**.

### EXPERIENCE

#### Department of Physics, Texas Tech University

*Student Research Assistant*

*January 2020- Present*

- Building a functionable inertial electrostatic confinement D-D Nuclear Fusion Reactor from scratch with resources from Department of Physics, TTU, being a full-time student
- Experimenting, designing, 3D-modeling, researching, analyzing results & statistics, improvising to various variables of an effective nuclear engine and engaging in the project estimated to be over \$40k in budget including the high-tech equipment's used.
- Researching, cooperating, learning, documenting, and discussing with the team of Dr. Robert Duncan comprising 27 people and a fellow student on this project, in addition of working in a lab environment and over 2 machine shops.
- Outcome has been getting valuable data on different methodology and potential of fusion energy.

### INVOLVEMENT

#### Society of Automotive Engineers (SAE), Texas Tech University

January 2022- Present

*SAE officer for aerodynamics and body lead*

- Leading the Red Raider Racing, aerodynamics team in SAE international race at Michigan.
- Taking creative decision and hands on experience performing CFD simulations, fabricating aerodynamic component of the race car, meeting SAE design compliance.
- Collaborating with the aerodynamic team, officers and members of other parts of the car to make a successful race car.

#### Society of Petroleum Engineers, Texas Tech University

*Student Member*

*September 2019 – Present*

- Outcome has been completion Don- Nan of Gas Lift & SRP introductory school, gaining knowledge related to the engineering that goes into fracking, crude oil extraction and understanding the supply and demand relation of fuel (natural resources) and engineering (manufacturing and designing for application of the resources).

#### NSFI-Corps, Innovation Hub at Research Park, Texas Tech University

*Student Innovator*

*August 2020 – September 2020*

- Business strategy development with research partner and co-innovator, based on the data from observations of the fusion project and self-conducted interviews from representatives of 5 plausible customers (General Fusion, LP&L)