Pinak Bhuban

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EDUCATION

Texas Tech University, Lubbock, Texas — Graduation: May 2023

Bachelor of Science, Mechanical Engineering
Minor in Mathematics
Dean's Honor List 2020

SKILLS

- 3D modelling and manufacturing/2D drawing using **AutoCAD**, **Inventor**, **SOLIDWORKS**
- Numerical methods and data analysis using **MATLAB and Python**
- **HTML** and basic **C++** proficiency
- **FEA** using **Ansys**
- Machine components design and materials science, with **GD&T**
- Electrical design and circuit components (servo motors, transistors, capacitors)
- Machining with common **machine shop, power & hand tools** (lathe machine, milling machine, torque wrenches, drill machine, band saw, grinder machine)
- Engineering fundamentals in **Solid** Mechanics, **Fluid** Mechanics, **Thermodynamics, Heat Transfer**, **dynamics** and vibrating bodies
- **Product development** and **Lean Six Sigma method**
- Native **English** and **Hindi** speaker, with basic understanding of **German**, Japanese**, Bengali.**
- Effective **reporting**, **summarizing**, drafting, making **data driven** and creative choices.
- **MS Office Tools** (Excel. PowerPoint, Word, Access)

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.

Texas Tech University Hospitality Services, Lubbock, Texas
Student Assistant — *October 2019 – November 2019*

- Handling the cash register in an on-campus food court working 5 days a week after classes, facilitating approx. 180 customers/day. Following proper storage, food safety, temperature procedures, proving effective hospitality to customer and supporting 3 shifting managers and fellow workers.

INVOLVEMENT

Society of Automotive Engineers (SAE), Texas Tech University — January 2022- Present

- Collaborating with other mechanical engineers to design, mechanically analyze, the TTU raider racing formula1 car.
- Attending weekly meetings

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)
- Drafting an abstract for the inertial confinement fusion reactor, created a 4 min YouTube video briefly explain the project, peer reviewed other student researchers for their projects, presenting at the Undergraduate Research Conference.

Society of Petroleum Engineers, Texas Tech University
Student Member — *September 2019 – Present*

- Attending field tours and info sessions at companies as Halliburton and Don Nan (Schlumberger) in the Permian Basin
- 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).