SHOUNAK MUKHERJEE

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EDUCATION:

Purdue University, West Lafayette, IN   **May 2025**
Bachelor of Science in Computer Engineering
Honors College

PERSONAL PROJECTS:

Text Minesweeper Game, Purdue University   **May 2022 – September 2022**
- Engineered and coded text minesweeper game using C
- Implemented a random level generation each time game is run but also is able to be seeded so all levels are repayable given seed number
- Generated 5 different levels of difficulty according to users' needs

IOS Tutoring App, Purdue University   **January 2022 – May 2022**
- Developed and outlined IOS app to help students connect to tutors for certain classes for 15 different classes
- Launched own site to support desktop mode made with HTML, CSS and JavaScript
- Updated with calendar functionality to allow students and teachers to meet up in an open time block

Speakers from Scratch, Purdue University   **October 2021- January 2022**
- 3D printed and machined blocks using SolidWorks. Created and compiled Arduino code used by the speakers to function
- Developed second model was 15% louder by using multi-threading with other small speakers

LEADERSHIP EXPERIENCE:

Scientific Computing Intern, Purdue Department of Health, IN, *Undergraduate Intern*   **September 2022 - Present**
- Constructing website that allows user to upload biological data using Python and developing parsing method to check files using Python

Purdue Data Mine, Purdue University, IN, *Undergraduate Data Science Research*   **August 2022- Present**
- Collaborating with FFSA on analyzing and visualizing mRNA data provided by local hospitals
- Utilizing Tableau, R, C#, and ML to analyze trends between 5,000 datasets
- Training to use R, SQL, and Python in TDM 10100 to display data in the interface, allowing greater ease of use for companies to observe relationships
- Increased site activity by 35%.

Purdue Math, Purdue University, IN, *Head Tutor/President*   **October 2021 - Present**
- Teaching Calculus one and Calculus two to 5 undergrad students and 3 high school students
- Engaging teaching in group setting so learning would be more organic and grades are up at least 20% for all of the students currently

Honors College, Purdue University, IN, *App Development Lead*   **February 2022 - May 2022**
- Built an app in charge of tracking house events during Fall and Spring semesters saving 10-15 minutes each meeting taking attendance
- Allowed RAs to take attendance much more easily during floor meetings and house competitions with improved UI

Design Thinking in Technology, Purdue University, IN, *Project Team Leader*   **August 2021 - December 2021**
- Led team to construct VR haptic glove that plays VR games using advanced C# programming concepts and developed compatibility with 20 VR games
- Developed game for haptic glove called "Handy's World" which enabled user to operate all 40 different haptic sensors in glove

Metro Hacks, Boston, MA, *Team Director*   **March 2021 – April 2021**
- Leader of Metro Hacks team and won first place, created turbidity with sensor to detect if bodies of water are safe for drinking and presented findings to UN with 3 other teammates.

SKILLS:

HTML, Java, JavaScript, Python, C, C++, command line, BASH, GIT, NPM, SQL, ML

KEY COURSE CURRICULUM

Microprocessor Interfacing, Multivariate Calculus, Data Mining, Bioengineering with R