

# Atharva Tiwari

Worcester Polytechnic Institute

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## EXPERIENCE

**Worcester Polytechnic Institute (WPI)**.....  
*Student* Aug 2020 - Dec 2025, Worcester, MA

### Mapping Vulnerability - Major Qualifying Project (MQP)

- Parsed and cleaned translated telegram messages to clean the dataset.
- Developed an ML model using LDA that classified the messages into 8 separate groups.
- Generated analytics on the nature of messages to map needs and discuss possible resource allocation.
- Conceptualized resource allocation recommendations based on the results from the ML analysis and EDA.
- Conducted a thorough Exploratory Data Analysis on helpline data to generate analytics for NGO staff and helpline management.
- Generated a Regression model to quantify the impact of certain variable on the protection of Ukrainian Citizens abroad and predict which individuals are more vulnerable given certain indicators.

### Psychiatry and Machine Learning: Unlocking New Frontiers in Mental Health Diagnosis and Treatment

- Developed machine learning model to provide psychiatrists with recommendations on an individual's mental disorder given a set of EEG readings.
- Tested and evaluated various machine learning models including: Support Vector Machines (SVMs), Random Forrest Classifier, and CNNs.
- Optimized the ML pipeline to ensure minimum times and efficient algorithm use.
- Wrote a paper regarding my process and results, as well as next steps in the research process that I would like to take.

### Seats4U - Software Engineering Project

- Led a team with 3 others to develop an innovative idea into a fully functional website.
- Directed and worked on frontend development with HTML, CSS and REACT JS.
- Developed a functioning backend with AWS Services (RDS, API Gateway, and Lambda)
- Designed an integrated Quality system to ensure quality in system.
- Spearheaded and developed an effective database design using ERDs and Relational Algebra.

### Achieving Effective Operations in the Cardiac Rehabilitation Center at Exeter Hospital

- Collaborated in a team of 3 along with the management at the Cardiac Rehabilitation Center and investigated the patient flow in the rehab process.
- Utilized value stream mapping, DMAIC, and Standard Work to identify and reduce non-value added time.
- Developed a new data collection and schedule which reduced patient process time by 25 mins.

**Eaton Corporation**.....  
*Operations Management Intern* May 2022 - Aug 2022, Milwaukee, WI

### Achieving Effective Operations at the South MKE Plant

- Assisted in SAP Material List generation to reduce cycle times and increase material selection accuracy.
- Worked on various Machine Guarding and EHS assessments to maintain safety standards.
- Developed a Data Collection and Analysis system using Power BI to track production issues.

## SUMMARY

Skilled industrial engineer and computer scientist specializing in machine learning and software engineering with a strong work ethic, looking for an opportunity to grow my knowledge base at a full-time role.

## EDUCATION

**Worcester Polytechnic Institute** Worcester, MA  
*Computer Science (MS)*  
In-Progress, December 2025

**Worcester Polytechnic Institute** Worcester, MA  
*Industrial Engineering (BS)*  
In-Progress, December 2024

## SKILLS

<b>Industrial Eng.</b>	Six Sigma, DMAIC, Value Stream, Optimization, Layout Planning
<b>Soft Eng.</b>	HTML, CSS, JavaScript, REACT, Node.js, REST API
<b>AI/ML</b>	Python, TensorFlow, SciKit, Google Colab
<b>DBMS</b>	MySQL, Oracle
<b>OS</b>	Windows, Linux
<b>Networks</b>	TCP/IP, UDP, Socket Programming
<b>DevOps</b>	GitHub
<b>Misc.</b>	AWS, C, C++, Java, LaTeX, Linux
<b>Soft Skills</b>	Leadership, Attentiveness, Resilience, Kindness

## LANGUAGES

- Hindi (Native)
- English (Native)
- French (Fluent)
- German (Intermediate)
- Spanish (Beginner)

## INTERESTS

- Sports
- Fitness
- Comedy