

Naren Khatwani

Jersey City, New Jersey, 07306 | +1-862-372-5079

narenkhatwani.work@gmail.com | [LinkedIn](#) | [Github](#) | [Portfolio](#)

Objective

To work in a challenging professional environment and thereby utilize my talent, skills, and experience in the field of Computer Science.

Education

MASTER OF SCIENCE | NEW JERSEY INSTITUTE OF TECHNOLOGY, NEWARK, NJ **SEPTEMBER 2021-PRESENT**

- Major: **Computer Science**
- Coursework: Java Programming, Database Management System Design, Operating System.

BACHELOR OF ENGINEERING | VESIT, UNIVERSITY OF MUMBAI

MAY 2017 – MAY 2021

- Major: **Computer Engineering**
 - Coursework: Data Structures, Analysis of Algorithms, Computer Networks, Advanced Algorithms, System Programming and Compiler Construction
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Skills & Abilities

PROGRAMMING LANGUAGES: Python, Java, C, Chapel, Typescript, Angular, Kotlin, JavaScript, Dart (Flutter)

DATABASE AND TOOLS: MySQL, Git Version Control, Eclipse IDE, Heroku, , Argo, Jenkins

WEB TECHNOLOGIES: CSS, HTML5

DESIGN: Zeplin, Figma, Adobe Xd

FRAMEWORKS AND LIBRARIES: Streamlit, Arkouda, SDLC, Cypress and Unit Testing

Internship Experience

FORBES | TECHNOLOGY ENGINEERING INTERN

JUNE 2022-AUGUST 2022

- Improved the User Interface of the Content Management System Bertie by creating Angular components per the Product Design Team – improved user interaction by seventy percent.
- Part of the **pilot team** for iOS and Android Development of the **Forbes Mobile Application**.
- **Designed the architecture** for Multivendor Call to Action feature to increase the **customer conversion rate** by fifty percent.

NETWORK OPERATIONS CENTRE INTERN | GPX INDIA PVT. LTD

DECEMBER 2019 – DECEMBER 2019

- Worked with the Network Operations Center (NOC) and improved the workflow of Building Management System (BMS) by visualizing the existing Chiller Plants' data using Python.
- Improved data handling efficiency with the use of python scripts saving six to eight hours of manual scraping of data in CSV files generated by the client data of the Data Center.

INTERN | FOX DOMOTICS PVT. LTD

JUNE 2019 – JULY 2019

- Successfully implemented the data analysis of Play Store application download data and drew inferences regarding their usage and compatibility.
- Predicted the future application download trends in accordance with the existing user reviews (sentimental analysis) using Machine Learning.

BUSINESS DEVELOPMENT INTERN | HAPLOTECH IT SOLUTIONS LLP

MARCH 2019 – AUGUST 2019

- Proactively organized weekly briefings with the marketing lead and was responsible for managing negotiations with clients.
- Contributed to the content ideation that led to developing a new content strategy and improved the sales pitches by twenty-five percent.

- Performed **Analysis of Meteorological Data** to study the Influence of Global Warming on temperature and humidity. This was implemented using data exploration and visualization tools in python.
 - Implemented **recognition of handwritten digits** from images to give its quantifiable value in text form.
 - Carried out Market Basket Analysis incorporating **Apriori algorithm** by considering the important sale parameters. This analysis proves to be an aid in enhancing the sales performance of a supermarket.
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Projects (Click on title to view)

FOOD AAYUSH | FINAL YEAR UNDERGRADUATE ENGINEERING PROJECT | COMPLETED

- The project aims to build an application for the analysis of the quality of food and to detect repeated frying on cooking oils based on the visual properties of the food items and the pH value of the oils.
 - The analysis of the nutritional value of food items is being done using a python-based framework known as Streamlit and the oil quality is analyzed via a **portable pH sensor**.
 - The outcome of the project **helps youngsters and inexperienced vegetable buyers** determine the food and oil quality.
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Research

GRADUATE RESEARCHER | NEW JERSEY INSTITUTE OF TECHNOLOGY

OCTOBER 2021- PRESENT

- **Arkouda** – research a software package that allows a user to interactively issue **massive parallel computations** on distributed data using functions and syntax that mimic NumPy, the underlying computational library used in most Python data science workflows.
- **Objective** - Test how a user can experience Arkouda and do a performance comparison study.

GLOBAL FOOD PRICES DATA ANALYSIS USING PARALLEL COMPUTING | RESEARCH PROJECT COMPLETED

- This Data Analysis project aims to show the performance comparison between Arkouda (a software package that allows a user to interactively issue massive parallel computations on distributed data) and Pandas by analyzing the open-source Global Food Price - dataset with more than 7 lakh rows.
 - The work done falls under the domain of **High-Performance Parallel Computing** which is estimated to improve the limit of existing Pandas library by **four hundred percent**.
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Publications (Click on title to view)

- **INTERACTIVE LARGE-SCALE DATA AND GRAPH ANALYTICS (ACCEPTED)**
 - Principles and Practice of Parallel Programming - 2023
 - Oliver Alvarado Rodriguez, Naren Khatwani, Zhihui Du, and David Bader
 - **FOOD AAYUSH: IDENTIFICATION OF FOOD AND OILS QUALITY**
 - Springer - Smart Innovation, Systems and Technologies - 2022
 - Joseph, R., Khatwani, N., Sohandani, R., Potdar, R., Shrivastava, A.
 - **ATTENUATION OF A PANDEMIC DISEASE SPREAD**
 - International Research Journal of Engineering and Technology (IRJET)
 - Anish Adnani, Naren Khatwani, Supriya Patil
 - **PREDICTION OF STRUCTURAL INTEGRITY OF RESIDENTIAL AND COMMERCIAL BUILDINGS**
 - The Institute of Engineers (India), Pune Local Chapter
 - Gayatri Patil, Naren Khatwani
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Accomplishments (Click on view to redirect)

REVIEWERS CHOICE PAPER | IEMAICLOUD 2021, SPRINGER, UK

29 APRIL, 2021

- Title - Food Aayush - Identification of Food and Oils Quality
- Joseph, R., Khatwani, N., Sohandani, R., Potdar, R., Shrivastava, A.

FOURTH PLACE WINNER | GITHUB SYRUS HACKATHON

6 MARCH, 2020

- Title – Civilian Aircraft Bird Strike Data Analysis

- Joseph, R., Khatwani, N., Sohandani, R., Potdar, R., Shrivastava, A.

BEST TECHNICAL PAPER | INSTITUTE OF ENGINEERS, INDIA

20 OCTOBER, 2019

- Title - Prediction of Structural Integrity of Residential and Commercial Buildings
 - Gayatri Patil, Naren Khatwani
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Volunteering

GITHUB CAMPUS EXPERT | NEW JERSEY INSTITUTE OF TECHNOLOGY

MAY 2022 - PRESENT

- GitHub Campus Experts are student leaders that strive to build diverse and inclusive communities to learn skills, collaborate on projects, and share their experiences
 - Created a NJIT HPC Initiative Community at the New Jersey Institute of Technology
 - Organizing events on campus to spread awareness about Parallel Computing being a viable research domain alongside Chapel Programming Language.
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Languages known

English, Hindi, Sindhi, Marathi, Sanskrit.

Hobbies

Photography, Numismatics, Story Writing, Food Blogging.
