# Er. Pearl Bipin Pulickal

About Me

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### Summary

Pearl Bipin Pulickal is an engineer, data scientist, and inventor with a strong foundation in both theoretical and applied fields. They graduated with a Bachelor of Technology in Electronics and Communication Engineering from the National Institute of Technology (NIT), Goa, and are currently pursuing an MSc in Mathematics and an MBA in Data Science. Their academic background reflects a clear interest in bridging technical, mathematical, and business concepts, giving them a multidisciplinary approach to problem-solving and innovation.

Pearl has been involved in several significant projects, such as the development of a Lightning Harvesting Device, which they have provisionally patented. The device focuses on harnessing energy from lightning using a network of supercapacitors and gas discharge tubes. Additionally, they created a Minimal CRM Assistant App, which leverages AI to help small businesses manage customer relationships in a simple, user-friendly format. Both projects showcase Pearl's ability to translate complex ideas into practical solutions.

In terms of research, Pearl's interests span a wide range of topics, including mathematics, artificial intelligence, machine learning, and theoretical physics. They have authored numerous publications on subjects like imaginary numbers, non-neural network approaches in AI, and the potential of ternary logic in computing. Their research reflects a deep intellectual curiosity and a desire to explore unconventional methods and new paradigms in both theoretical and practical contexts.

Pearl has shown a knack for conceptualizing tools that bridge technical knowledge with practical applications. They actively engage with academic and entrepreneurial communities, seeking feedback to refine their work. This balance of research, invention, and practical application points to a promising future in various scientific and technological domains.

## — Selective Personal Information

Date of Birth 20th July 2002

Place of Karanchira, Thrissur, Kerala

Birth

Gender Male

Marital Single

Status

Languages English, Hindi, Konkani, Arabic, Malayalam, Marathi and Urdu

Religious Roman Catholic Syrian Catholic

Background

Family Liberal & Secular

Values

Food Habits Non-Vegetarian

Height 5'6

Weight 75 KG

Siblings No

Father Bipin Zacharia Pulickal, Business Man

Mother Honey Bipin Pulickal, Housewife

Nationality Indian

2018-2020

#### Education

2024- Master of Business Administration in Data Science, Manipal Academy of Higher

Present Education, Karnataka, CGPA: 8.8

Distance Learning

2024 Master of Science in Mathematics, Chandigarh University, Punjab, CGPA:-

Present Distance Learning

2020–2024 Bachelor of Technology in Electronics and Communication Engineering, NIT Goa,

City, CGPA: 7.41 On Campus

2020–2022 **Diploma in Modern Applied Psychology**, *Achology*, United Kingdom, Kain Ramsay Distance Learning

Class 12th CBSE, Indian School Al Ghubra, Muscat, Oman, Grade: 95%

On Campus

2018–2020 Class 10th CBSE, Indian School Al Ghubra, Muscat, Oman, Grade: 93% On Campus

## Work Experience

2025- Visiting Researcher, BITS Goa, Sancoale, Research Area: EV Battery Modeling

Present Collaborating with the Department of Electrical and Electronics Engineering at BITS Goa, under the guidance of Dr. Sudarshan Swain, to design and develop mathematical models for electric vehicle (EV) batteries. The project focuses on assessing battery health using power data and applying traditional machine learning techniques to improve the efficiency of battery swapping systems.

2025- Visiting Researcher, NIT Goa, Cuncolim, Research Area: Electrical Engineering

Present Collaborated with Dr. Trilochan Panigrahi from NIT Goa on the development of a lightning energy harvester, resulting in a provisional patent filed under my name, with Dr. Panigrahi as a co-inventor. The work represents an early exploration into alternative methods of energy capture. Additionally, contributed to a collaborative research initiative on ternary logic gate microchips in partnership with NIT Goa and KTO Karatay University, Turkey. Led by Dr. Trilochan Panigrahi and Dr. Necmettin Turkoglu, the project explores sustainable energy applications and alternative computing models through the design of microchips based on ternary logic systems. The collaboration reflects a shared, long-term interest in advancing thoughtful and unconventional approaches to computing.

2025 — Data Scientist, Pearl Data Consultancy Services, Porvorim, Self Employed

Present I lead a team of 14 data scientists delivering high-impact international projects in AI and data science. Our work includes semantic segmentation for autonomous vehicles using DeepLabV3+, a high-accuracy ECG classification system via classical ML (95.2%), and dynamic stock market forecasting using interpretable regime-based models. I've developed lightweight, non-neural solutions like a collaborative filtering movie recommender, an 80% accurate image classifier, and an 83% accurate sarcasm detection algorithm. Key contributions from my team include time series forecasting, Power BI dashboards, and structured data transformation for economic datasets. My projects span classical and ensemble ML (e.g., wine quality prediction with stacked models), anomaly detection praised by Reliance Jio, and speech classification achieving over 92% accuracy. I've also created tools like a Q-learning Tic-Tac-Toe agent and a chatbot switching framework, and supported numerous academic clients on tasks from CNN tuning to research implementation..

#### 2023–2024 Data Scientist, CSIR-NIO, Dona Paula, Internship

During my internship at the CSIR–National Institute of Oceanography (NIO), I worked under Senior Principal Scientist Dr. Prakash Mehra, Principal Scientist Dr. Pramod Maurya, and Project Associate Engineer Mr. Brenner D'Costa on the "Soundscape and Fish Biodiversity in Coral Reefs" project. I processed and analyzed 86 GB of underwater bioacoustic data, applying advanced signal processing and statistical techniques using Python and R to extract parameters such as ACI, AEI, AR, and SPLrms. My work achieved 88% accuracy in estimating marine biodiversity across various locations. I was commended for my analytical skills, clean coding practices, and creative problem-solving, and received strong recommendations from both Dr. Mehra and Mr. D'Costa for my technical and collaborative contributions.

#### 2022–2023 Data Scientist, Reliance Jio, Navi Mumbai, Internship

During my internship at Reliance Jio under the guidance of Senior Data Scientists Mr. Dixit Nahar and Mr. Pranav Naik, I developed and compared three anomaly detection models using smart plug electrical data. I created a custom clustering algorithm from scratch (achieving 96% accuracy), implemented DBSCAN (78% accuracy), and built an autoencoder neural network using TensorFlow (67% accuracy). The project involved managing 12 GB of data and showcased my ability to build scalable, modular, and deployable solutions. I was commended for my time management, problem articulation, and clean coding practices. Mr. Dixit Nahar appreciated my preparedness, passion for machine learning, and ability to drive the project forward through proactive collaboration.

#### 2022- Personalized Academic Tutor, Sonash Classes, Porvorim, Goa, Full Time

resent As a dedicated Mathematics and Physics tutor for CBSE, ICSE, and Goa Board students (Classes 9–12), I offer personalized, high-quality instruction tailored to individual learning styles. With a strong technical background and a passion for teaching, I simplify complex concepts using real-life examples, visual aids, and engaging methods that encourage critical thinking and conceptual understanding. I avoid technical jargon, focus on creating a calm and enjoyable learning environment, and emphasize application-based learning over rote memorization. I have successfully guided 7 students across multiple subjects, all of whom achieved first-class results, reflecting my commitment to academic excellence and student success.

### Skills

Programming Python, JavaScript, C++, VBA, C, R

Languages

Web React, Node.js, HTML, CSS

Development

AI TensorFlow, Keras, Gradio API

Development

Data Tableau, Power BI, PostgreSQL, Microsoft Excel, Google Sheets

Analysis

Data Science Sci-kit Learn, Numpy, Matplotlib, Pandas, Beautiful Soup and APIs, NLTK, spaCy, Gensim,

and ML OpenCV, PyTorch, Selenium

Mathematics Linear Algebra, Statistics, Probability, Optimization, Calculus, Differential Equations, Real

Analysis, Complex Analysis, Information Theory and Combinatorics

Applied Cognitive Dissonance, Confirmation Bias, Heuristics, Classical and Operant Conditioning,

Psychology Defense Mechanisms, Maslow's Hierarchy of Needs, Anchoring Bias etc.

Management SWOT Analysis, Porter's Five Forces, Six Sigma, Key Performance Indicators (KPIs), Lean

Management, Organizational Culture, Cost-Benefit Analysis, Business Intelligence, Systems

Thinking etc.

#### Patent

# SYSTEM FOR HARVESTING AND UTILIZING ELECTRICAL ENERGY FROM LIGHTNING STRIKES

Patent Number: 202521000187

Filed: June 25, 2024

The present invention is a lightning harvesting apparatus designed to capture and store electrical energy from lightning strikes. The apparatus includes an omnidirectional conductive antenna tower connected to an energy distribution network comprising multiple branches with supercapacitors arranged in parallel. The captured energy is directed into these supercapacitors for storage. A control unit is integrated to manage energy storage and release, while a grounding mechanism handles any excess current that exceeds the storage capacity. An overvoltage protection component also safeguards the system from extreme voltages, ensuring operational safety. With the above-described structure, the apparatus efficiently converts the high-voltage energy from lightning into a manageable DC power supply, which can be utilised in various applications. The system is designed for scalability and integration into existing energy grids, providing supplemental power and enhancing grid stability.

## Selected Projects

## AI and Machine Learning Projects

• AI CRM Companion (May 2025)

Developed an AI-powered CRM assistant using Google Colab.

• Tic-Tac-Toe with Q-Learning (Apr-May 2025)
Implemented classic Q-learning for game strategy without neural networks.

• Contextual Sarcasm Detection (Apr 2025) Sarcasm detection model using NLP and statistical features, no neural nets.

o ECG Signal Classification (Mar–Apr 2025)

Classified ECG data using non-neural network machine learning techniques.

o Traveling Salesman Problem (Apr 2025)

Load-adaptive greedy heuristics applied to Euclidean TSP for logistics.

 $\circ$  Sound Classification (Mar–Apr 2025)

Developed sound classification model without neural networks.

 ${\color{red} \circ} \ \, \mathbf{Stock} \ \, \mathbf{Market} \ \, \mathbf{Forecasting} \, \, (\mathbf{Mar}\text{-}\mathbf{Apr} \, \, 2025)$ 

Forecasted stock trends using classical ML algorithms, avoiding deep nets.

 $\circ$  Data Encryption for Confidential ML (Feb-Mar 2025)

Designed encryption methods to secure machine learning models.

○ Wine Quality Prediction (Feb-Mar 2025)

Modeled wine quality based on physicochemical features using ML.

o Financial Data Laundering Detection (Jan-Feb 2025)

Unsupervised ML approach to detect laundering patterns in financial data.

Deformed Zeta Function Exploration (Dec 2024–Jan 2025)

Numerical analysis of zeta function on the critical line.

• Self-Contained Sarcasm Classification (Nov-Dec 2024)

Sarcasm detection using NLP and SVMs without neural networks.

### Natural Language Processing (NLP) Projects

o Spam Email Classification (Sep-Oct 2024)

NLP pipeline with TF-IDF and SVM; achieved 99% accuracy in spam detection.

O Dynamic Movie Recommender System (Sep-Oct 2024)

User-based collaborative filtering on MovieLens dataset for personalized suggestions.

o NLP Yelp Reviews Classification (May–Jun 2024)

Sentiment classification of Yelp reviews using ML techniques.

• Sentiment Analysis from User Input (Apr 2024)

Console-based sentiment analyzer using TextBlob for real-time text input.

• Text Summarizer (Mar–Apr 2024)

Implemented text summarization using NLP tools.

Computer Vision and Deep Learning

- Military Facility Detection (CNN) (Aug 2023–May 2024)
  - Custom CNN model for identifying military facilities from satellite images.
- Semantic Segmentation for Self-Driving Cars (Mar–May 2024)
  - Used DeepLabV3+ CNN architecture for image segmentation in autonomous vehicles.
- o Image Classification Without Neural Nets (Aug-Sep 2024)
  - Classic ML methods for image classification tasks.
- o Image Detection and Classification (CNN) (May–Jun 2022)
  - Food image classifier built with Keras convolutional neural networks.

#### Data Science and Statistical Analysis

- o SVMs, Clustering on Cancer Gene Data (Mar-Apr 2024)
  - Applied SVM, DBSCAN, decision trees, and k-means on TCGA gene datasets.
- o Fish Biodiversity Estimation (May–Jul 2023)
  - Analyzed coral reef biodiversity using bioacoustic data and statistical methods.
- Anomaly Detection with ML/DL (May–Jul 2022)
  - Detected anomalies in data using TensorFlow and scikit-learn.
- O Data Science Capstone (Dec 2021–Jan 2022)
  - Applied data visualization and analysis techniques using Matplotlib.
- Monte Carlo Simulation for Real Estate (Oct–Dec 2020)
  - Modeled investment outcomes integrating Python with Excel macros.
- o Mini Data Science Projects (Jan 2020–Jan 2021)
  - Included web scraping, absenteeism analysis, dashboards, and data cleaning.

#### Other Projects

- o Morse Code Encoder and Audio Player (Jun-Jul 2024)
  - Developed a functional Morse code translator with audio playback.
- o Dynamic Visualization of Circular Motion (Feb-Mar 2023)
  - Created Python animations illustrating sine wave relationships.
- O Linear Regression using ANN (May 2021)
  - Built a linear regression model with artificial neural networks.
- 8-bit ALU Design (Minor Project) (May–Jun 2020)
  - Designed an 8-bit arithmetic logic unit using Cadence Virtuoso.

#### Academic and Research Achievements

Subject Topper – Business Statistics (MBA Semester 1)

Manipal Academy of Higher Education — April 2025

Secured the highest score in class: 96/100 (Grade: A+). Demonstrated exceptional analytical and quantitative skills in the first semester of the MBA program.

O Top 1% of New Researchers in 2024

Research Gate / National Institute of Technology, Goa — October 2024

Ranked among the top 1% internationally for new researchers by Research Interest (RI) score within six months. Recognized for significant research contributions at age 22.

Subject Topper – Basic Electrical Science (B.Tech Semester 1)

National Institute of Technology, Goa — April 2021

Achieved highest grade (S grade) in Basic Electrical Science (EE151), awarded to the top performer.

## Academic Excellence in School and Competitions

- High Achievers List Class 12 (Physics, Chemistry, Mathematics, Computer Science)
  - Central Board of Secondary Education / Indian School Al Ghubra May 2020
  - Scored 95/100 in all four subjects in Class 12 board exams.
- Bronze Medalist NBO Hackathon
  - National Bank of Oman November 2019
  - Secured 3rd place in a national hackathon; awarded cash prize of 70,000 INR.

Gulf Mathematics Olympiad Topper

The Arab Bureau of Education for the Gulf States — October 2019 Ranked among the toppers in this regional mathematics competition.

First Place – MCBS National Mathematics League

Modern College of Business and Science, Muscat — March 2019

Won first position in a nationwide mathematics league competition.

Perfect Score – Mathematics (CBSE Class 10 Board Exam)

Central Board of Secondary Education / Indian School Al Ghubra — March 2018 Achieved a perfect 100/100 score in Class 10 mathematics.

School Subject Topper – Science (CBSE Class 10 Board Exam)

Central Board of Secondary Education / Indian School Al Ghubra — March 2018 Scored 99/100 in science, ranked among school toppers.

○ Perfect Attendance Record – 5 Consecutive Years

Indian School Al Ghubra — January 2018

Maintained perfect attendance for 5 years; received medal and certificate.

## Selected Research Publications

- A Structural Analysis of 0/0 Indeterminate Forms: Conditions for Unit and General Limits ResearchGate, May 26, 2025
- Elementary Irrationality Proofs for Linear Slices of Fermat's Equation ResearchGate, Apr 29, 2025
- A Recursive-Imaginary Deformation of the Riemann Zeta-Function ResearchGate, Apr 29, 2025
- Load-Adaptive Greedy Heuristics for the Euclidean Traveling Salesman Problem ResearchGate, Apr 23, 2025
- Real-Valued Surrogates for the Imaginary Unit via Logarithmic Mapping Magnitude Matching

ResearchGate, Apr 23, 2025

Contextual Sarcasm Detection Without Neural Networks

ResearchGate, Apr 18, 2025

 Solving a Harmonic Oscillator with Recursive Imaginary Damping via the Imaginary Laplace Transform

ResearchGate, Apr 12, 2025

 Complex Stochastic Amplitudes: A Unified Framework for Interference, Superposition, and Noise in Classical Probability

ResearchGate, Apr 12, 2025

Stock Market Forecasting Without Neural Networks

ResearchGate, Apr 11, 2025

ECG Signal Classification Without Neural Networks

ResearchGate, Apr 11, 2025

 The Imaginary Mellin Transform: An Extension to Recursive Imaginary Units ResearchGate, Apr 10, 2025

- o Recursive Fourier Transform: Extension of Fourier Transform for Recursive Imaginaries ResearchGate, Apr 10, 2025
- Sound Classification Without Neural Networks

ResearchGate, Apr 10, 2025

 Extending Laplace Analysis into Recursive Imaginary Domains ResearchGate, Apr 9, 2025

 Exploring x Raised to x: From Derivative to Antiderivative ResearchGate, Apr 5, 2025

- Logarithmic Insights into Imaginary and Higher-Order Imaginary Numbers ResearchGate, Apr 4, 2025
- $\circ$  An Elegant Expression for  $\pi$  in Terms of Complex Logarithms ResearchGate, Apr 4, 2025
- Exploring the Central Limit Theorem: How Many Groups for Normality? ResearchGate, Jan 14, 2025
- A Bayesian Solution to the Sleeping Beauty Paradox ResearchGate, Jan 2, 2025
- Self-Contained Sarcastic Sentence Classification Without Neural Networks ResearchGate, Dec 30, 2024
- o Dynamic Model Switching in Centralized and Decentralized Chatbot Systems ResearchGate, Sep 7, 2024
- Super and Hyper AC: Redefining Voltage Dynamics ResearchGate, Sep 3, 2024
- o Beyond the Big Bang: The Mathematics of a Cyclical Universe ResearchGate, Aug 3, 2024
- Quantum Limits on Moore's Law in Electronics ResearchGate, Jul 28, 2024
- o The Number of Numbers: Zero, Infinity, and Mathematical Boundaries ResearchGate, Jul 8, 2024
- Improbable Probability: Deviant Behavior in Coin Flips ResearchGate, Jul 4, 2024
- Imaginary Numbers in Logic Gates: Beyond Ternary Paradigms ResearchGate, Jul 2, 2024
- Lightning Harvesting System ResearchGate, Jun 27, 2024
- Image Classification Without Neural Networks ResearchGate, Jun 26, 2024
- o Ternary Logic Gates: Advancing Computing with -1, 0, 1 Base ResearchGate, Jun 11, 2024
- o Anomaly Detection Algorithm for Elliptical Clusters Based On Maximum Cluster Diameter Criteria

ResearchGate, May 26, 2024

## Some of my Favorite Songs

- Sweet Dreams Eurythmics
- O Not Like Us Kendrick Lamar
- o I Like You (A Happier Song) o Kings & Queens Ava Max Post Malone
- o Taste Sabrina Carpenter
- Alibi Sevdaliza
- o Alejandro Lady Gaga
- O Baby Doll Kanika Kapoor
- O Paint the Town Red Doja Cat O Heat Waves Glass Animals
- o Espresso Sabrina Carpenter
- O Stereo Love Edward Maya
- O Rasputin Boney M
- O Dynamite BTS
- O Dynamite Taio Cruz
- O Sweater Weather The Neigh- O Circles Post Malone

- bourhood
- o Greedy Tate McRae
- O Sweet but Psycho Ava Max
- Only Love Can Hurt Like This O No Lie Dua Lipa Paloma Faith
- o She's All I Wanna Be Tate o Bloody Mary Lady Gaga McRae
- O Eastside Benny Blanco
- o Millionaire Digital Farm Animals
- o I'm Good (Blue) David Guetta o Something Just Like This Cold-
- o Give Me Everything Pitbull

- O Rockstar Post Malone
- Congratulations Post Malone
- o Flowers Miley Cyrus
- O Lean On Major Lazer
- O So Am I Ava Max
- O In the Name of Love Martin Garrix
- O Closer The Chainsmokers
- O All We Know The Chainsmok-
- play
- O Don't Let Me Down The

- Chainsmokers
- o Titanium Sia
- O Latch Disclosure
- O Starboy The Weeknd
- o Don't Wake Me Up Chris
- O Wake Me Up Avicii
- O Stay Zedd
- O Clarity Zedd
- O Summertime Sadness Lana Del
- O Stay the Night Zedd
- O How Deep Is Your Love Calvin Harris
- O Elastic Heart Sia
- O Heroes Alesso
- o It Ain't Me Selena Gomez
- Never Forget You Zara Larsson
- O Nagada Sang Dhol SonyMusic
- O Badtameez Dil T-Series
- O Habits (Stay High) Tove Lo
- O Love Me Like You Do Ellie Goulding
- Rather Be Clean Bandit
- O King Years & Years
- O Symphony Zara Larsson
- O Chammak Challo T-Series
- O Illuminati Aavesham
- O Yeh Ishq Hai Shreya Ghoshal
- The Breakup Song Sony Music
- O Apna Har Din
- O Ale Pritam
- O Cheap Thrills Sia
- Moonlight XXXTENTACION
- o SAD! XXXTENTACION
- O Hit the Road Jack Ray Charles
- o FE!N Travis Scott
- Jalebi Baby Tesher
- ODJ Got Us Fallin' in Love -Usher
- O Summer Calvin Harris
- O Bad Romance Lady Gaga
- Timber Pitbull
- O Hey Mama David Guetta

- o I Took a Pill in Ibiza (Seeb o In Da Club 50 Cent Remix)
- On the Floor Jennifer Lopez
- O Can't Stop the Feeling Justin Timberlake
- Mirrors Justin Timberlake
- O Cry Me a River Justin Timber- O Stronger Kanye West
- Everybody Backstreet Boys
- O Smack That Akon
- Older Sasha Alex Sloan
- O Beautiful Now Zedd
- O Work from Home Fifth Harmony
- Stay The Kid LAROI
- Feel This Moment Pitbull
- Without Me Halsey
- Wolves Selena Gomez
- O Aaj Ki Raat
- O Luther Kendrick Lamar
- O Birds of a Feather Billie Eilish
- Hips Don't Lie Shakira
- Worth It Fifth Harmony
- O Sledgehammer Fifth Harmony
- Exotic Priyanka Chopra
- O Blank Space Taylor Swift
- O Style Taylor Swift
- We Can't Stop Miley Cyrus
- O Meant to Be Bebe Rexha
- O Let Me Love You Ne-Yo
- O Subah Hone Na De
- O Without Me Eminem
- O Beat It Michael Jackson
- O Lay All Your Love on Me -ABBA
- o Hotel California Eagles
- o I Mean It G-Eazy
- O Him & I G-Eazy
- o I Wanna End Me Billie Eilish
- O Fast Car Jonas Blue
- O This Is What You Came For -Rihanna
- Somebody That I Used to Know
   Mary's Boy Child Boney M
- - Gotve

- o Angel Eyes ABBA
- Stayin' Alive Bee Gees
- O Burn Ellie Goulding
- Locked Out of Heaven Bruno
- O Thudakam Maangalyaam
- Muthuchippi
- o Godzilla Eminem
- O Rude Boy Rihanna
- O Umbrella Rihanna
- o Malare Premam
- O Just the Two of Us Grover Washington Jr.
- O Demons Imagine Dragons
- O Believer Imagine Dragons
- O Him & I G-Eazy
- Me, Myself and I G-Eazy
- Ma Baker Boney M
- Chiquitita ABBA
- Brown Girl in the Ring Boney
- O Daddy Cool Boney M
- Super Trouper ABBA
- Voulez-Vous ABBA
- SOS ABBA
- O Does Your Mother Know -ABBA
- One of Us ABBA
- O Thank You for the Music -**ABBA**
- O Jackie Chan Tiësto
- Uvirin Nadhane
- o Kachodum Potti Appo Vattu Aava Povo
- Pomuthole
- Tum Hi Ho
- O Yeh Mera Dil
- Tujhe Dekha Toh
- Golmaal
- Despacito

## Some of my Favorite Movies

- The Shawshank Redemption
- Goldfinger James Bond
- The Dark Knight
- O Skyfall James Bond
- o Furious 7 o 12 Angry Men

- Dumbo
- Citizen Kane
- Casablanca
- Tov Story
- O Beauty and the Beast
- Wall-E

- Mad Max: Fury Road
- o 101 Dalmatians
- O Ant Man
- Cindrella
- Lady and the Tramp
- Bambi

- A Beautiful Mind
- Star Wars
- O Schindler's List
- Pulp Fiction
- The Good, the Bad and the Ugly Bangalore Days
- Forrest Gump
- Inception
- The Matrix
- Goodfellas
- Interstellar
- One Flew Over the Cuckoo's
- No Country for Old Men
- Ted
- Venom
- The Bourne Trilogy
- American Psycho
- The Silence of the Lambs
- The Green Mile
- The Green Book
- Terminator
- O Back to the Future
- Spirited Away
- The Lion King
- O Spiderman: Across the Spider-
- Guardians of the Galaxy
- Avengers
- Django Unchained
- Memento
- Inglourious Basterds
- Good Will Hunting
- Joker
- Reservoir Dogs
- To Kill a Mockingbird
- The Grapes of Wrath
- Oppenheimer
- The Wolf of Wall Street
- Jurassic Park
- Jumanji
- Ratatouille
- The Hangover
- O Pan's Labyrinth
- O Die Hard
- The Passion of the Christ

- Titanic
- Doctor Strange
- o 3 Idiots
- O Taare Zameen Par
- Ayyapanum Koshiyum
- Drishyam
- Manichitratazhu
- Nadodikkattu
- In Harihar Nagar
- Kumbalangi Nights
- Kireedam
- Chitram
- Sholay
- O Jab We Met
- O Jai Bhim
- o RRR
- O Super 30
- English Vinglish
- Sultan
- Krrish
- Premam
- The Fault in Our Stars
- Straight Outta Compton
- Man of Steel
- O Black Panther
- Monty Python and the Holy Grail
- Airplane!
- Life of Brian
- The Social Network
- Lord of the Rings
- Superbad
- War Dogs
- The Dictator
- Jojo Rabbit
- Harry Potter
- The Theory of Everything
- Dunkirk
- Bohemian Rhapsody
- The Pursuit of Happyness
- Ray Charles
- Tenet
- O City of God
- O Joseph: Man with the Scar

- Shrek
- o Cars
- Flight (Denzel Washington)
- O Tarzan the Wonder Car
- The Mummy
- Finding Nemo
- Monsters Inc
- John Wick
- Rocky
- The Usual Suspects
- O Pirates of the Caribbean
- Casino Royale
- Mission Impossible
- Avatar
- o Iron Man
- Ouantum of Solace
- Enter the Dragon
- Deadpool
- o El Camino
- O Ghost Rider
- Alice in Wonderland
- Spanish Masala
- O Dilwale Dulhania Le Jayenge
- O Tom and Jerry: The Movie
- Kingdom of Heaven
- The Boy in the Striped Pajamas
- Men in Black
- o 21 Jump Street
- Central Intelligence
- Johnny English
- O Rasputin: Dark Servant of Destiny
- Aquaman
- Justice League
- Dangal
- Risen
- The Man Who Knew Infinity
- O Charlie and the Chocolate Factorv
- Rush Hour Series

Need for Speed

- Fists of Fury
- Son of God

## Some of my Favorite TV Shows

- Breaking Bad
- o Better Call Saul
- O Brooklyn Nine-Nine
- Game of Thrones Vikings
- O Avatar: The Last Airbender
- O Daredevil (Marvel)
- Punisher (Marvel)
- True Detective (Season 1)
- Attack on Titan

- Monster (Urasawa Naoki)
- O Death Note
- Erased
- Fullmetal Alchemist
- o Fullmetal Alchemist: Brother-

hood

O Black Butler

Beelzebub

The Chosen

Hunter x Hunter

Code Geass

Berserk

One Piece

The Queen's Gambit

One Punch Man

Cowboy Bebop

Beyblade

O Dragon Ball Z

Fairy Tail

Tokyo Ghoul

Steins; Gate

Violet Evergarden

Peaky Blinders

The Walking Dead

House MD

Narcos

Rick and Morty

Prison Break

Money Heist

Dark

Mirzapur

Sacred Games

O Scam 1992: The Harshad Mehta Story

Lucifer

Mindhunter

Fleabag

Naruto

Top Gear

Fifth Gear

The Orville

Kota Factory

Chernobyl

Phineas and Ferb

Tom and Jerry

SpongeBob SquarePants

Dexter's Laboratory

Adventure Time

O Super Robot Monkey Team Hyperforce Go!

• Courage the Cowardly Dog

O Batman: The Animated Series

o Ed, Edd n Eddy

O Spider-Man: The Animated Se-

• The Amazing World of Gumball

o F.R.I.E.N.D.S

Band of Brothers

• The Vietnam War

Gravity Falls

Pride and Prejudice

Family Guy

• The Simpsons

Sherlock (BBC)

• The Office

Oggy and the Cockroaches

O Star Wars: The Clone Wars

o Regular Show

Pokémon

Looney Tunes

O Popeye the Sailor Man

• The Adventures of Tintin

o Mr. Bean

Johnny Bravo

• The Legend of Tarzan

O Star Wars: The Bad Batch

O Johnny Test

The Legend of O Ramayana:

Prince Rama

Mind Your Language

• The Big Bang Theory

Young Sheldon

O Big Mouth

o Mr. Bean: The Animated Series

o Mr. Robot

• The Mandalorian

Black Mirror

Air Crash Investigation

Ancient Aliens

Pawn Stars

American Chopper

Happy Tree Friends

o Genius Series: Einstein

O How It's Made

River Monsters

## Some of my Favorite Games

O Phoenix Wright: Ace Attorney

• Steins; Gate (VN)

O Doki Doki Literature Club

Katawa Shoujo

O The House in Fata Morgana

o The Last of Us

O God of War Series

God of War Ragnarok

O Horizon Zero Dawn & Forbidden O Minecraft West

O Ben 10 Series

Guardians of the Galaxy

Hogwarts Legacy

O Silent Hill 2

Killzone

Jak and Daxter

Spiderman Games

Batman

• The Walking Dead (Telltale)

• The Wolf Among Us

O Batman (Telltale)

Shadow of the Colossus

 Bloodborne O Demon's Souls

• The Witcher 3: Wild Hunt

Uncharted Series

o Grand Theft Auto Series

Bioshock

Red Dead Redemption

Ghost of Tsushima

o Half-Life 2

o Grim Fandango

O Sam and Max: Hit the Road

Assassin's Creed

• The Elder Scrolls: Skyrim

O Star Wars: Knights of the Old Republic

O Star Wars: Jedi Survivor

O Star Wars: Jedi Fallen Order

O Detroit: Become Human

Beyond: Two Souls

Heavy Rain

Far Cry

Mafia II o FIFA

Max Payne Series

Ratchet and Clank

Life is Strange Series

Fortnite

Call of Duty Series

Gran Turismo

Watch Dogs

Among Us Genshin Impact

Hitman

Driveclub

Rocket League

I Became a Dog

Alter Ego

- Stardew Valley
- Dragon City
- Miscrits Series
- The You Testament
- Hard Time
- o ARK: Survival Evolved
- O Dumb Ways to Die
- Limbo
- Mini Militia
- Need for Speed Series
- O Real Racing 3
- o Microsoft Flight Simulator Se- o Fallout Shelter
- Infamous Series
- O Alan Wake

- Kerbal Space Program
- Diablo Series
- O The Sims
- Apex Legends
- BitLife
- O Bio Inc Plague
- Troll Quest Series
- Optical Inquisitor 17+
- The Talkie
- O Tomb of the Mask
- Vector
- Plants vs Zombies
- One Piece Game
- Avatar Game (James Cameron)

- Hill Climb Racing Series
- Shadow Fight Series
- Game of Thrones (Telltale)
- Counter-Strike
- Superhot
- Destiny Series
- o PUBG
- Wolfenstein Series
- Minecraft Story Mode
- Undertale
- Euro Truck Simulator
- Sleeping Dogs
- Horizon (Xbox)

## Some of my Favorite Books

- o The God of Small Things -Arundhati Roy
- One Hundred Years of Solitude
- O How to Talk to Anyone
- Goosebumps Series
- O The Mountain is You
- The Art of Seduction
- O Denial of Death
- o Principles Ray Dalio
- O Bhagavad Gita
- Dhammapada
- Holy Bible
- O Tao Te Ching
- I Ching
- Kybalion
- Gnostic Gospels
- The Essential Rumi
- O Paradise Lost Milton
- The Key of Solomon the King
- The God Delusion Richard Dawkins
- Upanishads
- The Elephant in the Brain
- Freakonomics
- Poor Economics
- O Same as Ever Morgan Housel
- The Psychology of Money Morgan Housel
- O Can't Hurt Me David Goggins
- The Wimpy Kid Series
- The Torah
- o Gödel, Escher, Bach
- o Grit Angela Duckworth
- Emotional Intelligence Daniel Psycho-Cybernetics

- Goleman
- o Influence Robert Cialdini
- o The Art of War Sun Tzu
- The Subtle Art of Not Giving a F\*ck
- Algorithms to Live By
- O Clear Thinking Shane Parrish O The Power of Now Eckhart
  - Atomic Habits James Clear
  - Mindset Carol Dweck
  - The Stanley Milgram Experi- The Courage to Be Disliked
  - The Stanford Prison Experiment
  - Man's Search for Meaning Vik The Enchiridion Epictetus tor Frankl
  - The 7 Habits of Highly Effective People
  - One Minute Manager
  - The Magic of Thinking Big ○ Being and Time Heidegger David Schwartz
  - o Start with Why Simon Sinek
  - The Art of Happiness Epicurus
  - Life's Amazing Secrets
  - O The Alchemist Paulo Coelho
  - O By the River Piedra I Sat Down and Wept – Paulo Coelho
  - The Book of Five Rings
  - O Richest Man in Babylon
  - Rich Dad Poor Dad
  - o Think and Grow Rich
  - The Intelligent Investor • The Art of Thinking Clearly –
  - Rolf Dobelli
  - O The Almanack of Naval Ravikant

- O Think Like a Monk
- The Paradox of Choice
- The Body Keeps the Score
- $\circ$  The 80/20 Rule
- Thus Spoke Zarathustra
- O The Prophet Kahlil Gibran
- The Obstacle Is the Way
- O Siddhartha Hermann Hesse
- Limitless Jim Kwik
- The Analects Confucius
- O Wabi Sabi
- Kaizen
- Nicomachean Ethics Aristotle
- The Republic Plato
- Beyond Good and Evil Nietzsche
- O Critique of Pure Reason Kant
- O The Prince Niccolò Machiavelli
- o Thinking, Fast and Slow Daniel Kahneman
- Flow Mihaly Csikszentmihalyi
- O Sapiens: A Brief History of Humankind
- o Guns, Germs, and Steel
- O Zen and the Art of Motorcycle Maintenance
- The Lean Startup
- Ozero to One Peter Thiel
- O Shoe Dog Phil Knight
- Blue Ocean Strategy
- The Personal MBA
- The Hard Thing About Hard

- Things
- Good to Great
- O Never Split the Difference -Chris Voss
- o Switch Chip Heath & Dan o Metamorphosis Franz Kafka Heath
- The Interpretation of Dreams ○ The Works of Edgar Allan Poe Freud
- The 48 Laws of Power Robert In Cold Blood Truman Capote Greene
- O Crime and Punishment Dostoevsky
- Notes from Underground
- The Brothers Karamazov
- o No Longer Human Osamu
- O Pride and Prejudice Jane Austen
- To Kill a Mockingbird Harper Lee
- 1984 George Orwell
- Frankenstein Mary Shelley
- The Great Gatsby F. Scott Fitzgerald
- Moby-Dick Herman Melville
- o The Complete Works of Shake- o Brain Rules John Medina speare
- O Three Men in a Boat
- The Divine Comedy Dante The Lucifer Effect Philip Zim-Alighieri
- Steinbeck
- Alexandre Dumas
- ley

- Fahrenheit 451 Ray Bradbury On Liberty John Stuart Mill
- The Theory of Everything ○ Shijing: Book of Songs Stephen Hawking
- o Animal Farm George Orwell
- The Trial Franz Kafka
- The Boy in the Striped Pajamas
- A Song of Ice and Fire George R.R. Martin
- Meditations Marcus Aurelius
- O Drive Daniel Pink
- O A Brief History of Time Stephen Hawking
- Outliers Malcolm Gladwell
- Thinking in Systems Donella Meadows
- The Red Book Carl Jung
- o Man and His Symbols Carl o Enlightenment Now Steven
- Duhigg
- o Descartes' Error Damasio
- Obedience to Authority Stanlev Milgram
- bardo
- o Don Quixote Miguel de Cer- o Predictably Irrational Dan o The Book of Secrets Osho Ariely
- o The Grapes of Wrath − John o Made to Stick − Chip & Dan Heath
- o The Count of Monte Cristo o The Happiness Hypothesis -Jonathan Haidt
- O Brave New World Aldous Hux- O The Social Animal Elliot Aronson

- The Idiot Dostoevsky
- Educated Tara Westover
- Two Essays on Analytical Psychology – Carl Jung
- o Summa Theologica Thomas Aguinas
- O The Book of Life Jiddu Krishnamurti
- Apocryphon: The Secret Book of John
- The Five Love Languages Gary Chapman
- The Rape of Nanking Iris Chang
- o 12 Rules for Life Jordan Peter-
- Factfulness Hans Rosling
- Pinker
- The Power of Habit Charles The Man Who Mistook His Wife for a Hat - Oliver Sacks
  - Antonio O The Rational Optimist Matt Ridley
    - Beyond Persuasion Richard Vatz
    - O Star Wars: Thrawn Trilogy
    - Men Are from Mars, Women Are from Venus

    - Attitude Is Everything Jeff Keller
    - O Who Will Cry When You Die? Robin Sharma
    - Wings of Fire A.P.J. Abdul Kalam

## Miscellaneous Artworks and Personal Accomplishments Favourite Origami Models I've Made

- Origami Beetle
- Origami Hercules Beetle
- Origami Dragon
- Origami Fiery Dragon
- Origami Squirrel 1
- Origami Squirrel 2
- Origami Flasher
- Origami Space Monster
- Origami Flapping Bird
- Origami Crane

- Origami Peacock
- Origami Rabbit
- Origami Cat
- Origami Cardinal Bird
- Origami Parrot
- Origami Flapping Butterfly
- Origami Butterfly
- o 3D Origami Swan
- o 3D Origami Scorpion
- Origami Flower

- Origami Fox
- Origami Pterodactyl
- Origami Yoda
- Origami Mouse
- Origami Dragon Egg
- Origami Fighter Jet
- Origami Simple Plane
- Origami Boat
- Origami T-Rex
- Origami Frog

- Origami Christmas TreeOrigami RoseOrigami StarOrigami Lotus
- Origami AngelOrigami Money DogOrigami Horse

### Drawings I've Made

Eren Yeager Sketch

O Annie Leonhart Sketch

 ${\color{blue}\circ}$  Crying Eyes

Monster Steiner

• Portrait of a Girl

Origami Box Snake

Origami Box Man

- Rose
- Simple Dragon

#### Other Skills and Hobbies

- o I invest in the stock market, including Post Office schemes and cryptocurrency from time to time.
- I play the harmonica and enjoy graphic design using Canva.
- o I hold a brown belt in Karate.
- I was a gold medalist in the 100m sprint, a senior football team member in high school, an excellent swimmer, and a skilled chef.
- o I can sing above average in Hindi and English, especially melodic and slow songs.

#### Notable Appearances and Volunteering

- O Guest speaker on Data Stories Podcast by Deepesh Wadhwani.
- o Guest speaker at Symbiosis International University.
- O Graphic Designer at EBSB Club, NIT Goa
- O Content Manager at Spectra
- o Emotional Support Volunteer at JumpingMinds.ai
- Streamer at Gamer Network

#### — Certifications

o Time Series Data Analysis Using Python

Instructor: Jose Portilla Platform: Udemy

• A Simple Introduction to Digital Signal Processing

Instructor: Darin Brezeale

Platform: Udemy

NLP - Natural Language Processing With Python

Instructor: Jose Portilla Platform: Udemy

Become a Linear Algebra Master

Instructor: Krista King Platform: Udemy

Become a Differential Equations Master

Instructor: Krista King Platform: Udemy

O Become a Calculus 3 Master

Instructor: Krista King Platform: Udemy

The Complete Microsoft Power BI Bootcamp

Instructor: Nikolai Schuler

Platform: Udemy

TensorFlow Developer Certificate: Zero to Mastery

Instructor: Daniel Bourke

Platform: Udemy

Web Scraping APIs for Data Science

Instructor: Alexander Schlee

Platform: Udemy

Web Scraping with Beautiful Soup for Data Science

Instructor: Alexander Schlee

Platform: Udemy

Python for Excel: Use xlwings for Data Science and Finance

Instructor: Alexander Hagmann

Platform: Udemy

o Integrating Python, SQL, and Tableau

Instructor: 365 Careers Platform: Udemy

O Data Structures & Algorithms in Python

Instructor: Scott Barrett

Platform: Udemy

Python for Data Science and Machine Learning Bootcamp

Instructor: Jose Portilla Platform: Udemy

O Statistics & Mathematics for Data Science & Data Analytics

Instructor: Nikolai Schuler

Platform: Udemy

The Complete SQL Bootcamp

Instructor: Jose Portilla

Platform: Udemy

Microsoft Excel - Excel from Beginner to Advanced

Instructor: Kyle Pew Platform: Udemy

Python

Platform: Mimo

 $\circ$  SQL

Platform: Mimo

Diploma in Applied Psychology

Instructor: Kain Ramsay Platform: Achology

#### Recommendations

Rishabh Rao

Engineering Graduate from BMS Karnataka

**Date:** May 22, 2025

I've known Pearl Bipin Pulickal since our school days, and even back then, it was clear there was something special about him. Pearl has always been one of the most naturally gifted people I've met, especially when it comes to math. To say he's passionate about it doesn't quite cut it. While the rest of us were off playing or taking a break, he'd be happily diving into algebra or solving complex problems just for fun.

What's always stood out to me is how he balances that sharp academic focus with such a warm, fun-loving personality. He wasn't just the top scorer in class, he was also the guy who brought his A game to football matches and had everyone laughing with his energy and spirit. He somehow managed to be brilliant without ever being distant or disconnected.

Pearl's curiosity is infectious, he learns because he genuinely wants to, and that enthusiasm shows in everything he does. He's got a rare mix of depth and openness; someone who's equally at ease solving a

tricky equation or having a thoughtful conversation about life.

In every sense, Pearl is a true all-rounder, brilliant, driven, curious, and full of heart. Any team would be lucky to have someone like him.

#### Yash Diniz

Analyst — Software Engineer, API/Backend, Databricks/MLFlow

**Date:** May 3, 2025

Pearl is someone I've had the pleasure of working with, and I can confidently say he's fantastic at what he does. His data science skills are impressive, and he's always willing to dig deep to find insights. I appreciate his enthusiasm and dedication to helping businesses succeed.

We've worked together on multiple complex projects and research, and Pearl's ability to communicate clearly and tailor his approach to our needs has been really valuable. His background in business and tech gives him a unique perspective, and he's always thinking strategically. What's more, his academic credentials are impressive - he's got a strong foundation in both business and data science, which really shines through in his work.

If you're looking for someone with data science expertise, I'd definitely recommend Pearl. He's talented and enthusiastic, and I've learned a lot from working with him.

#### Atharva Gaikwad

Bachelor of Technology - BTech at National Institute of Technology, Goa

**Date:** May 2, 2025

I am pleased to recommend Mr. Pearl Bipin. I have known him since our college days and have seen him grow through various challenges with determination and a positive attitude. What I appreciate most about Pearl is his action-oriented mindset. Unlike many who only talk about their goals, Pearl takes initiative and learns by doing.

His perfect score in mathematics during the board examinations is a clear reflection of his hard work and dedication. Additionally, his decision to pursue a path different from the usual choices made by college students shows his confidence and willingness to take bold steps.

I sincerely recommend Mr. Pearl Bipin and wish him continued success in all his future endeavors.

#### Anees Mohamed

B. Com Finance Graduate from University of Calicut

**Date:** April 7, 2025

I've known Pearl Bipin Pulickal since childhood, and he's always stood out for his intelligence, kindness, and generosity. Back in Class 10 CBSE, he played a huge role in helping me prepare for the math board exams—always patient, clear, and insightful. He scored a perfect 100/100, and learning from him was both inspiring and impactful. To this day, I turn to him for academic and career guidance. Pearl is not only a brilliant mind but also a truly great teacher and friend.

#### Jefin Antony Joy

Cyber Security Enthusiast

**Date:** April 7, 2025

I'm pleased to recommend Pearl Bipin Pulickal, a graduate of NIT Goa and someone I've had the privilege of learning from during our school years. Pearl has a rare gift for mathematics—not only in mastering complex topics but also in explaining them with clarity and patience.

He helped me immensely during our Class 12 CBSE board exams, especially with challenging subjects like integration and differential equations. His ability to break down difficult concepts made a real difference in my understanding and performance.

Pearl has always been an exceptional student, with a perfect score in Mathematics in Class 10 and a consistent record of academic excellence. His depth in mathematics and its applications, including areas like machine learning, is truly impressive.

I've learned a great deal from him and deeply value the support and insight he has shared over the years.

Jivitesh Singh

 $(Patent\ Litigation)\ at\ Chadha\ \mathscr{C}\ Chadha\ --\ Penultimate-year\ law\ student\ at\ University\ School\ of\ Law\ and\ Legal\ Studies,\ GGSIPU$ 

**Date:** January 25, 2025

I had the privilege of working with Pearl Bipin Pulickal as his legal advisor while drafting the patent specification for his innovative Lightning Harvesting Patent, which has been successfully provisionally filed with the Indian Patent Office. Pearl is a visionary thinker, driven by his passion for sustainable energy solutions, and his ability to conceptualize and execute groundbreaking ideas is truly commendable.

During the patent process, Pearl exhibited exceptional professionalism, meticulous attention to detail, and a collaborative mindset. His dedication to ensuring every aspect of the project was thoughtfully addressed speaks volumes about his commitment to excellence and integrity.

I have no hesitation in recommending Pearl for future endeavors. His creativity, determination, and expertise make him an invaluable contributor to any team or initiative aiming to push the boundaries of innovation.

#### Surith Arawwala

Data Scientist

Date: November 14, 2024

Pearl is an exceptional data science professional with a rare combination of technical expertise and strategic thinking. Their proficiency in areas such as machine learning, statistical modeling, and data visualization allows them to turn complex data into meaningful insights that drive business outcomes.

What truly sets apart is his ability to tackle intricate challenges with innovative solutions. Whether developing advanced predictive models or optimizing data pipelines, they consistently deliver results that exceed expectations. His work not only enhances decision-making processes but also empowers teams to leverage data more effectively.

In addition to their technical skills, Pearl is known for his strong communication and leadership abilities. He has a talent for explaining complex concepts in a way that's easy to understand, enabling seamless collaboration across technical and non-technical teams.

#### Durva Matondkar

Student at Sunshine Worldwide School

**Date:** July 6, 2024

Durva was Er. Pearl's client To Whom It May Concern,

I am writing to recommend my math tutor, Pearl Bipin. His teaching style is unique and has made a big difference for me. He explains concepts in a way that's easy to understand, using real-life examples that even a small child can grasp.

Mr. Bipin manages time really well. If we had started from the beginning of the year, we would have finished the syllabus months before the exam. He gives just enough homework to help learn the concepts without being overwhelming.

I am confident that his teaching has prepared me well for my re-exam.

Sincerely,

Durva Matondkar

#### Prakash Mehra

Scientist at NIO

**Date:** June 8, 2024

Prakash managed Er. Pearl directly

I am pleased to write this recommendation letter for Mr. Pearl Bipin, a graduate of NIT Goa, 2020–2024. During the summer of 2023, he interned at the National Institute of Oceanography under my supervision, contributing significantly to the project "Soundscape and Fish Biodiversity in Coral Reefs using Bioacoustics." He, along with his colleague Mr. Sambhav Prabhu Dessai, preprocessed 86 GB of underwater bioacoustics data from various locations in Goa. They applied advanced digital signal processing and sampling methods, utilizing tools like R programming libraries and Python, along with Jupyter Notebooks, to process, create data frames, and visualize the data.

They derived important statistical parameters such as mean, median, average, skewness, Acoustic Complexity

Index, Acoustic Richness, and Acoustic Evenness Index. Mr. Bipin's analytical skills and his ability to interpret complex datasets were commendable.

He worked closely with our Project Associate Engineer, Mr. Brenner D'Costa, demonstrating excellent teamwork and collaboration. He regularly met with team members to ensure cohesive progress and mutual understanding of project goals.

Pearl Bipin is a versatile and skilled data scientist with proficient knowledge in digital signal processing. He has a proven track record of solving complex data problems with ease. By the end of his internship, Mr. Bipin and his colleague successfully identified locations with higher fish biodiversity based on the bioacoustics data.

In conclusion, Mr. Pearl Bipin is a good candidate with strong technical and interpersonal skills. I highly recommend him for any position or opportunity he pursues and would be an asset to the organization.

With best wishes,

Dr. Prakash Mehra

Head, Marine Instrumentation Division

Senior Principal Scientist

CSIR - National Institute of Oceanography

Dona Paula, Goa, India

#### Dr. Nidhi Sawant

Ph.D. — M.E. (Electronics and Instrumentation Engineering) — B.E. (Electronics and Communication Engineering)

**Date:** June 7, 2024

Dr. Nidhi was Er. Pearl's teacher

I had the pleasure of teaching Pearl Bipin, and he consistently demonstrated a proactive and enthusiastic approach to learning, particularly in mathematical concepts. Pearl exhibited exceptional interest in solving equations and approached problems in unconventional ways. While his peers followed traditional textbook methods, Pearl consistently sought to simplify complex problems, often finding more efficient solutions.

His philosophy of maximizing output while minimizing input was evident in his work. Pearl's belief in smart work over hard work set him apart, as he always aimed to achieve the best results with the least amount of effort. His innovative thinking and dedication to efficiency make him a standout individual who is sure to excel in any endeavor he pursues.

#### Soham Banerjee

Urban Planning and Architecture Student with Internship Experience

**Date:** June 6, 2024

Soham and Er. Pearl studied together

I had the pleasure of witnessing Pearl Bipin's remarkable journey in mathematics, from a humble start to becoming a true genius in the field. Pearl's dedication and hard work are evident from his transformation into a top performer, culminating in him achieving the prestigious title of All India Topper in CBSE Mathematics Board Exams. His consistent excellence, whether scoring 100/100 in mathematics or securing top positions in various competitions like the Gulf Mathematics Olympiad and Hackathon of National Bank of Oman, is a testament to his exceptional abilities.

Pearl's talent extends beyond just achieving high scores; he possesses a rare gift of simplifying complex mathematical concepts, making them accessible to everyone. As a friend and colleague, I've personally benefited from his clear explanations and deep understanding of mathematical principles. It's no surprise that Pearl excels in data science, where a strong foundation in mathematics is paramount. His versatility as an engineer, data scientist, and mathematician is a testament to his multifaceted skill set and unwavering dedication to excellence. Pearl Bipin is truly a force to be reckoned with in the world of mathematics and beyond.

Ayushi Garg

Business Woman

Date: June 4, 2024

Ayushi was Er. Pearl's client

It is my pleasure to recommend Pearl Bipin, an outstanding Data Scientist with exceptional expertise in Machine Learning and Deep Learning, particularly in K-Means Clustering and Convolutional Neural Networks. Pearl's dedication to his work is evident in the excellent results he consistently delivers. His code is not only highly accurate but also remarkably neat, organized, and easy to understand, which greatly facilitates collaboration and implementation.

Pearl's projects consistently achieve accuracy levels above 95%, showcasing his deep understanding and skill in the field. One notable project was his semantic segmentation model for self-driving cars, which truly stood out and demonstrated his capability to handle complex and challenging tasks with finesse.

I have had the pleasure of being Pearl's customer and am continually impressed by the value he provides. Despite my budget constraints, Pearl has always delivered results that far exceed expectations, never complaining about the price. His sincerity, professionalism, and exceptional skill set make him an invaluable asset to any project or team.

I wholeheartedly recommend Pearl Bipin for any Data Science or Machine Learning project. He delivers remarkable results with an unparalleled level of dedication and expertise.

#### Jacob Asir

## AI Engineer - Data + GenAI + AI Agent (AI/LLM)

May 17, 2024, Jacob managed Er. Pearl directly

It is great to work with Pearl. He is professional, experienced, sincere, talented and hardworking. He has a strong base in Data Science, Machine Learning and Artificial Intelligence. He knows how to break down and explain complex concepts in common man's language. He is excellent at applying supervised machine learning algorithms like Support Vector Machines, Regression and Clustering Algorithms achieving a result of 99.72% accuracy in one of the classification projects given to him in which he applied SVMs.

#### Priyanka Gaikwad

Data Analyst — Expertise in Advanced Excel, SQL, Python — Power BI and Tableau for advanced data analysis — Snowflake — Turning Data into Actionable Insights
May 13, 2024, Priyanka reported directly to Er. Pearl

Pearl's commitment to excellence and passion for data science shine through in every project he undertakes. His ability to navigate intricate datasets and extract meaningful insights is unparalleled. With a keen eye for detail and a knack for creative problem-solving, he consistently exceeds expectations. Pearl's collaborative approach fosters a productive work environment, where ideas flourish and innovative solutions emerge. His dedication to producing high-quality work makes him a valuable asset to any organization. With Pearl on board, you can trust that your data-driven initiatives will be in capable hands.

#### Kevin Antony

#### Machine Learning Engineer at Pixlr

March 6, 2024, Kevin and Er. Pearl studied together

Pearl is an incredibly hardworking person. Apart from that, he's a math whiz and has always been the go-to guy for me if I had any data science problems. I am sure that his expertise would be a great asset to any client he is working with or any organization that he is working for.

#### Sambhay Prabhu Dessai

March 4, 2024, Sambhav and Er. Pearl studied together

Pearl's data science consultancy is nothing short of outstanding. With a one-person team, Pearl manages to deliver exceptional results. His expertise and dedication are truly impressive, consistently providing insightful solutions to complex data challenges. If you're looking for a skilled and reliable solo data scientist, Pearl is the go-to professional.

#### Sudarshan Thakur

#### Doctoral Researcher UGC-SRF at National Institute of Technology, Goa

February 8, 2024, Sudarshan was Er. Pearl's teacher

I entrusted Pearl with an intricate data manipulation and preprocessing challenge, navigating through extensive data regarding different variables for more than 1,000 companies over 15+ years. To put the magnitude into perspective, had I undertaken this endeavor myself, dedicating 4 hours a day, it would have consumed a staggering 2 months of my time. Yet, Pearl, armed with a mastery of data science, not only defied the complexities but astoundingly transformed the task—originally estimated at 240 hours—into a remarkable achievement completed in a mere 10 hours. He charged me a very nominal fee for the entire work.

Pearl's expertise was the linchpin, orchestrating a symphony of efficiency in data handling. Beyond the deliverables, Pearl generously shared invaluable insights, imparting knowledge on advanced techniques such as Pivot and Unpivot operations and adeptly guiding me on parsing a single column into distinct entities based on specific conditions.

In essence, Pearl is not just a data virtuoso but a teacher, elevating my skills for future challenges. Without hesitation, I highly recommend Pearl for his exceptional skills and unparalleled ability to conquer the most intricate data landscapes with unwavering brilliance.

#### Pramod Maurya

#### Marine Robotics Engineer Principal Scientist at CSIR NIO

August 3, 2023, Pramod managed Er. Pearl directly

Pearl is a hardworking individual who takes pleasure in the work that he does, I found him to be diligent and sincere in his work. I wish all the best for his future endeavours.

#### Pranav Naik

# University of Bristol — Kinisi Robotics — Ex-Jio Data Scientist — MSc Robotics — AI ML — CV — NIT Goa '21

August 3, 2022, Pranav worked with Er. Pearl on the same team

Was a pleasure working with Pearl in our team! Had a great time working with him. His sincere and planned approach towards undertaking the tasks at hand is appreciated.

#### Dixit Nahar

#### GenAI Manager

August 3, 2022, Dixit managed Er. Pearl directly

It has been great to work with Pearl for 2 months. He is sincere, values time, has a good knack and passion for machine learning. He understood his role very quickly, and he turned out to be a workhorse anyone would want to have in the team. He articulated the problem statement effectively in Machine Learning terms and applied Clustering, Auto Encoder neural networks to come up with a deployable solution. The best part of the internship has really been how effortless it is to work with him. He always came prepared to meetings, we always had different conversations because of that and hence we were always taking a step ahead. Coming to his coding skills: that has been effortless as well, modularised and neat!