

Pourab Karchaudhuri

SOLUTIONS ARCHITECT
SUPER STACK DEVELOPER

Truly motivated, experienced Software Engineer with a demonstrated history as a disruptive technology architect and a Super Stack Developer specialized in leveraging new age technologies including AI/ML/Computer Vision/Cloud/NLP/XR



pourab.karchaudhuri@gmail.com

[linkedin.com/in/pourabkarchaudhuri](https://www.linkedin.com/in/pourabkarchaudhuri)

github.com/pourabkarchaudhuri

WORK EXPERIENCE – 5+ Years

Hexaware Technologies Limited, Chennai
Innovation Labs – R&D Wing (CTO Office)

Technical Architect

September 2021 – Present

Responsible for leading the Research & Development Team, analyzing and implementing solution architecture and design of disruptive technologies.

Systems Analyst

September 2020 – Present

Responsible critical research for key systems greenfield product designing and architecting software and cloud architecture landscapes for disruptive and immersive technologies ranging from Deep Learning based Computer Vision, Mixed Reality, Smart Glasses, and Virtual Reality.

Senior Software Engineer

September 2019 – August 2020

Key R&D role in the organization, technology evangelization and incubation, working across Extended Reality and Computer Vision projects, incubation and green field implementations

Software Engineer

September 2018 – August 2019

Incubation team for Conversational AI, Computer Vision and Cloud agnostic deployments for end to end project stacks on disruptive technologies

Associate Software Engineer

September 2017 – August 2018

Key team member to work on Conversational AI, Full Stack applications and Voice Technology

Software Engineer Trainee

December 2016 – August 2017

Key team member to work on Conversational AI, Full Stack applications and Voice Technology

SKILLS

Languages

JavaScript

Node.JS

Express.JS

Python

Go

Specializations

Cloud & Infra Technologies

Azure

AWS

Jenkins

Docker

GitHub

Machine Learning & Deep Learning

TensorFlow

Keras

Scikit-Learn

Pytorch

Conversational AI with Chat & Voice

Dialogflow

LUIS

Lex

RASA

Twilio

Alexa

Google Assistant

Spacy

Computer Vision

OpenCV

FaceNet

ResNet

ImageNet

YOLO

Masked RCNN

CERTIFICATIONS

1. Design Thinking – University of Virginia
2. Quantum Computing – IBM Qiskit
3. Machine Learning – Stanford University
4. Microsoft Azure Certified AI Associate – **AI100**
5. Microsoft Azure Certified in Cloud Fundamentals – **AZ900**
6. AWS Certified Cloud Practitioner

INTERESTS

AI

Cloud Computing

Music

Painting

Art & Culture

Games

Travel

Research

*** Project Experience and Achievements in the Next Page**

SOME NOTABLE PROJECTS

3D Product Configurator

- Architected An 3D product configurator for real time 3D asset configuration in B2B sales

WebAR

- Architected An embeddable plugin for app-less Augmented Reality for ERPs like Dynamics 365

HMD Work Order Management

- Architected an end to end head mounted display/smart glasses application to do work order management with integrations to Microsoft Dynamics 365 for Hexaware's Field 360/Smart Technician offering

Brochure AR Data Pipeline, Tulane University

- Architected and built an end to end pipeline to ingest data from an Augmented Reality app on Azure and create data visualization for the customer to track information consumed using PowerBI

Visual Image Search, Michael Kors

- Unsupervised learning based visual search engine that searches similar fashion items based on style, color and type without any tagging of data required using Deep Learning

Automated Mesh generation of Medical Imagery of Breast Cancer Cells, Tulane University

- Created an end-to-end 3D mesh generation pipeline which takes TIFF images scanned using medical imagery of cancer cells, and created 3D mesh to be visualized in AR & VR

Disaster VR, Tulane University

- Built the intelligence of a virtual avatar stuck in a Disaster zone using Deep Learning and conversational AI. User has to talk to the avatar and decrease stress level for avatar to trust the user, get comfortable and get evacuated

Face Recognition Kiosk, BPEA

- Desktop app to check-in employees/people in an organization and integrate with HR systems and ITSM systems to raise tickets, generate ID cards and train itself on every entry.

Oversight, Hexaware

- A complete pipeline built both on On-prem and cloud Deep Learning to detect faces and cluster similar people using unsupervised learning for face recognition. Dashboard to tag photos of each cluster and train ML model using supervised learning for face recognition.

Cloud Contact Center, OnCall International

- AI-powered cloud hosted call center with a voice assistant to answer IVR calls and handle routing/triage/agent escalation seamlessly, and integrates to CRM to create cases and authenticate customer.

Ava, Yorkshire Water Services

- Chatbot for a water-utilities company deployed on Facebook Messenger to aid their customers get their inquiries on water quality using Google Dialogflow, custom algorithms and AWS.

EDUCATION

Master's Degree in Software Engineering, 2023

[Birla Institute of Technology, Pilani](#)

Bachelor's Degree in Electrical Engineering, 2016

[Dream Institute of Technology, Kolkata](#)

High School, 2012

[Assembly of God Church School, Kolkata](#)

ACHIEVEMENTS

National Winner - Microsoft DevOps Hackathon 2021

Showcased and deployed an end to end 3-Tier Web Architecture using Azure DevOps Pipelines

National Winner - Microsoft Industry Garage Hackathon 2021

An Immersive Retail solution powered by Mixed Reality for accelerating hopping experience by enabling customers to try before they buy

Global Winner: Microsoft Garage 2020 – Project Faceable

An Azure powered automated face recognition systems continuously running on Machines to lock out users if Shoulder surfing is detected with enterprise grade compliance and security

National Winner: Code Gladiators 2020 – Automated Multi Label Classification

An open-source automated news classification pipeline using core NLP algorithms and unsupervised clustering to mine and group contextual news articles and use GPU intensive deep learning models to classify news articles to appropriate categories

Speaker at Unite India 2019 on "Empathy AI driven VR Simulations"

Speaker in India's biggest GDC event for Unity on AI driven immersive VR simulations, and showcased next generation capability merging AI + Cloud + XR technologies

National Winner - Code Gladiators 2019 - Open Source Unsupervised Conversational AI

A completely extensible open source Chatbot engine powered by Deep Learning that can answer FAQs on any messaging platform from structured documents, web scraping and unsupervised learning from unstructured documents

Winner: The IMS Hackathon 2019 - Project Tau

An NLP and ML powered AI system that auto classifies tickets integrated to enterprise ITSM tools and a Mixed Reality dashboard for data visualization of infrastructure resources for ELK stacks or cloud VM clusters.

National Finalist: Code Gladiators 2018 - Erospace

A highly scalable, country wide air quality matrix service on AWS cloud with IoT and Gateway layers with city specific dashboards with a serverless architecture.

Global Winner: Alexa Skills Challenge 2017 - Medical Assistant

An Alexa skill in production that acts as an AI - powered doctor that diagnoses all your symptoms and gives you a proper and accurate differential diagnosis and tells you which doctor you should go to and how severe it may be, with suggestive answers.

HOBBY PROJECTS

To check out my hobby projects, visit the following links:

- github.com/pourabkarchaudhuri
- <https://www.youtube.com/channel/UCT1MTTJ6eTrAwT0I17eW6SA/videos>

TRAVEL & VISA

Held Schengen VISA from 2019 – 2020

- Attended Unite 2019 in Copenhagen, Denmark as a partner delegation
- Attended AutoML closed conferences in Munich, Germany