

1. Gen AI Apps

Apr 2024 - Present

I am currently engaged in full stack development for generative AI applications, where I design and implement both the backend and frontend systems. My work involves integrating advanced AI models to create intelligent, interactive, and user-friendly applications. This includes optimizing data processing, ensuring seamless model deployment, and enhancing the overall user experience with innovative AI functionalities.

Technologies: Vue, Python, PostgreSQL, Postman, AI Models and Tools, HTML5, CSS, TailwindCSS.

Infrastructure: AWS, Apache Airflow, Docker, OpenAI Models, HF Spaces, BitBucket

Team size: 15

Responsibilities:

Senior Consultant, spearheading the product engineering development team of 3 members by providing technical leadership to drive innovation and excellence in the product.

Providing Architectural design for both front-end and back-end systems, ensuring alignment with project requirements and industry best practices.

2. Data Annotation Studio

Sep 2021 – Apr 2024

It is a platform as a service (PaaS) tool that can be accessed via browser for generating Training dataset at scale to accelerate autonomous development programs and cover the entire lifecycle of AI Model development. It allows rapid creation of training data with minimal human intervention, Create and manage workflows, Custom Train Models and execute Inference, perform Quality checks, and generate insights on the Annotated Data within a unified platform.

Technologies: MEAN Stack, Jasmine, Python, Postman, AI Models and Tools, HTML5, CSS, Material Design

Infrastructure: AWS, Azure, Apache Airflow, Docker, Gitlab, PM2

Team size: 25

Responsibilities:

Spearheading the DAS product engineering development team of 20 members by providing technical leadership to drive innovation and excellence in the product.

Providing Architectural design for both front-end and back-end systems, ensuring alignment with project requirements, security standards and industry best practices.

Orchestrating stand-up calls and actively gathering updates from team members to ensure seamless communication, collaboration, and timely delivery.

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3. SMARTS (Patented)

Jan 2023 – Oct 2023

It is a software as a service (SaaS) web-based application that harnesses the power of crowdsourcing and generative AI, to create and continuously augment a large repository of diverse experience-based driving scenarios at scale, low cost and zero risk while helping and accelerate Verification & Validation(V&V) of Autonomous Vehicles (AVs) OEMs/Tier Companies.

Technologies: Angular, Python, FastAPI, MongoDB, Postman, Nightwatch JS, HTML5, TailwindCSS, Material Design, Generative AI Model Providers (Open AI, Hugging Face), LangChain

Infrastructure: AWS, Apache Airflow, Docker, AWS CodeCommit

Team size: 9

Responsibilities:

Solely Designed and developed the front end for this application.

Involved in architecture design and code optimization of backend and generative AI API calls.

4. Hubspace

September 2023 – November 2023

Hubspace is a self-initiated process improvement strategy project aimed to ease the life of AI model developers. It is a platform agnostic setup tool built in Python and designed to make it easier for machine learning developers to create boilerplate template code for their models and tools.

Whether someone is building a machine learning model or an analytics tool, Hubspace guides through the process and creates the necessary project structure, including Docker files, airflow orchestration setup and even FastAPI endpoints.

Technologies: Python

Infrastructure: AWS, Github

Team size: Individual

5. Infraedge

October 2023 – November 2023 (Individual Project)

InfraEdge is a configuration driven Python library designed to simplify and manage connections to various cloud infrastructure providers, including AWS, Azure, and more and is intended to connect to various cloud services like S3, STS, Blob Storage, and can be even extended to support services

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like File I/O Operations for on-premises hosts.

Technologies: Python, Docker, Boto3

Infrastructure: AWS, Github

Team size: Individual

6. UVSITY

March 2022 – August 2023 (ad-hoc collaboration)

UVSITY is an online marketplace for all educators, coaches, and session organizers. Through this platform users can earn from their hosted sessions, sponsorships, and one-to-one appointments pre configured with zoom. The platform also allows its users to stay connected with their attendees and participants in the form of a social networking experience.

Technologies: Next JS, Spring Boot, MySQL, Postman, HTML5, Tailwind CSS, Material

Design **Infrastructure:** AWS, Jenkins, Github

Team size: 6

Responsibilities:

Solely Designed and developed the front end for this application.

Dev URL: <https://dev2.uvsity.com/>

7. #सुनलो - Music Streaming App

June 2021 – August 2021 (Individual Project)

A music streaming progressive web application designed in Next JS where users need to authenticate them by Google sign in and then they can play various playlists, albums, artists, songs, and search for music worldwide. The system is built on a dual data pulling API strategy where one uses the AWS S3 store, and another uses the Jio Saavn store for uninterrupted ad free music streaming.

Technologies: Node JS, Next JS, Firebase, HTML5, Tailwind CSS, Postman

Infrastructure: AWS, Vercel, Github

Team size: Individual

Live URL: <https://musify-plus.vercel.app/>

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8. Google Search Clone | Instagram Clone | WhatsApp Clone | Netflix Clone | Spotify Clone | YouTube Clone

Aug 2020 – June 2021 (Individual Projects)

React JS Clones of popular web apps.

Technologies: React JS, Firebase, HTML5, Tailwind CSS

Infrastructure: Vercel, Github

Team size: Individual

Live URL:

Google Clone: <https://google2-0-clone.vercel.app/>

Instagram Clone: <https://instagram-clone-react-ap-b47c5.web.app/>

WhatsApp Clone: <https://whatsapp-clone-1590c.web.app/>

Netflix Clone: <https://netflix-clone-react-app.web.app/>

Spotify Clone: <https://spotify-clone-react-app.web.app/>

YouTube Clone: <https://chax9088.web.app/>

9. Workflow Testing Utility - Testing as a Service (TaaS)

(Patented) May 2019 – May 2021

Workflow Testing Utility -Testing as a Service (TaaS) is an outsourcing model in which testing activities associated with some of an organization's business activities are performed by a service provider rather than employees.

TaaS involves engaging consultants to help and advice employees or simply outsourcing an area of testing to a service provider. TaaS is most suitable for specialized testing efforts that don't require a lot of in-depth knowledge of the design or the system. Services that are well-suited for the TaaS model include automated regression testing, performance testing, security testing, testing of major ERP (enterprise resource planning) software, and monitoring/testing of cloud-based applications.

Technologies: Java, SQL, Javascript, HTML5, CSS, Bootstrap.

Infrastructure: On Premise hosting and code repository management.

Team size: 11

Responsibilities:

Solely Designed and developed the front end for this application.

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Involved in backend architecture design.

10. Soarian Financials (US Healthcare Revenue Cycle Management)

June 2018 – May 2021

Soarian Financials is a healthcare revenue cycle management (RCM) system designed to help hospitals and healthcare providers manage their financial operations efficiently. It integrates various financial processes, from patient registration and billing to accounts receivable and reporting, providing a comprehensive solution for managing the financial aspects of healthcare operations.

Technologies: Java, Spring Boot, SQL, Postman, JMeter, Javascript, HTML, CSS, GWT, Accurev.

Infrastructure: On Premise hosting and code repository management.

Team size: 20

Responsibilities:

Design, develop, test, and maintain software applications and systems, ensuring they meet quality and performance standards.

Collaborate with cross-functional teams to identify and address software issues, implementing bug fixes and enhancements.

Participate in code reviews to ensure code quality, adherence to coding standards, and knowledge sharing within the team.

11. Park-My-Car

May 2019 – December 2019

Park-My-Car is a live office car parking app that was self-initiated and was presented as a Hackathon idea. The idea aims to facilitate the daily office parking system by providing real time updates to the car owners (Org Employees) on the following:

- Live Car Parking Slot Availability Info based on Org Office Locations based on GPS/RFID.
- Parking Occupancy Information.

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The idea was exhibited at the 2019 Hackathon event where it bagged second prize.

Technologies: Spring Boot, MySQL, ReactJS, Postman

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

12. Data Collector and Processing (DCP) Agent

Feb 2019 – June 2019

DCP is a Java based system that aims to collect structured data asynchronously as a service across multiple targets/computers that essentially have MS SQL, MySQL, Oracle or PostgreSQL at the backend.

It enables healthcare software provider organization to proactively locate revenue volume that is stuck in the Revenue Cycle processing of Clients, caused by application/configuration or environment related processing issues and be able to track and resolve them to optimize revenue realization for the clients.

Technologies: Java, JavaFX, SQL, Powershell

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

13. HL7 Transaction Tool

Sep 2017 – Dec 2018

HL7 Transaction Tool is a Java Based Enterprise Application for managing Health Level 7(HL7) [ADT](#) and [DFT](#) healthcare inbound transactions.

Technologies: Java, SQL, Postman, JSP, HTML5, CSS, Javascript, Bootstrap

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

14. Failover Windows Logger Tool

June 2017 – Sep 2017

The purpose of the tool is to detect any failures in a client system through a power-shell mechanism and send the same to windows event viewer for alerting.

Technologies: Powershell

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Infrastructure: On Premise hosting and code repository management.

Team size: Individual

15. Data Trend Analytics Tool

April 2017 – June 2017

Data Trend Analytics is a web-based tool designed in PHP backend to analyze data trends of healthcare (DSS) clients. The tool/system primarily investigates the overall runtime trends for each client by means of a trend algorithm and in its final output would suggest whether an RCA needs to be initiated to the development team, for a particular Client or not.

Technologies: SQL, PHP CodeIgniter, HTML5, CSS, Javascript, Bootstrap

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

16. Microsoft Outlook Email Extractor Utility

Oct 2016 – Dec 2016

The Microsoft Outlook Email Extractor Utility tool automates the process of extracting the number of emails into a desired report by remotely extracting the Emails from the user desired Outlook folder into a rich text report rendered in MS-Excel format. This tool helps in saving much time, reduces manual effort in making the report and at the same time is free of errors. This tool is intended for accuracy and will help to strategize the data collected into a rich report as its final output.

Technologies: C#

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

17. Auto Shift Assigner Utility

Sep 2016 – Oct 2016

The Automatic Shift Assigner tool automates the process of daily shift allotments for resources. The tool is used to auto assign resources (a.k.a people) by reading from the Excel Roster and assigning the shifts to people for 1 business year in one shot with just a throughput of 32 seconds. This saves a huge amount of time needed to be invested everyday while assigning shifts manually for each day from the UI.

Technologies: C#

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

18. Web Email Oncall Directory

Jun 2016 – Sep 2016

An in-house web-based application to get the various EMAIL distribution lists and other information for communication purposes across various teams during on call paging activity. The main thing about this tool is that it understands the time zones and shows email distribution list as per IST and ET time zones. This makes it easier and less error prone and suggests whom to send email to and when as per the DST time zones.

Technologies: SQL, PHP CodeIgniter, HTML5, CSS, Javascript, Bootstrap

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

19. Skipped Record Analysis

Apr 2016 – July 2016

An in-house web-based application for skipped record data management and analysis of multiple client servers. Skipped records are dollar amount transactional data that gets created when a healthcare financial transaction is skipped due to various system set up errors such as configuration, connectivity, ETL fails etc. Skipped records have significant dollar impact to the client and hence proactive management, validation and analysis is required to resolve a skipped record back to a meaningful transaction, wherever applicable, thus gaining back the dollar amount in system as a valid revenue/remit to the client.

Technologies: SQL, PHP CodeIgniter, HTML5, CSS, Javascript, Bootstrap

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

20. Windows Service Switcher

Feb 2016 – Mar 2016

A batch system for bouncing Windows services on a single click among multiple data servers.

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Technologies: Powershell, Batch

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

21. Online University Application Form Submission System (NERIST Arunachal Pradesh | Tezpur University | Dibrugarh University)

Jul 2014 – Nov 2014

Large Scale Online university form submission process deployed both at cloud and dedicated servers across multiple Central Universities in Northeast India, given that integration of Internet Payment Gateway was also successfully implemented during the process.

Technologies: MySQL, PHP Laravel, HTML, CSS, Javascript, jQuery,

Bootstrap **Infrastructure:** On Premise hosting and code repository management.

Team size: 3

Live URL:

NERIST: <https://www.neeonline.ac.in/>

TEZPUR: <https://www.tezuadmissions.in/public/student/register>

DIBRUGARH: <https://erp.dibru.work/dibru/student/new-applicants>

22. Offline P2P Chat System @ Department of Pension, Arunachal Pradesh

Jun 2014 – Sep 2014

An in-house offline peer to peer chat system that involves text messaging from one person to another just on a fly. It was implemented in a Government Organization DAP, Arunachal Pradesh and deployed successfully. It was built with the motive of deploying an in-house text-intercom service within the office network premises.

Technologies: MySQL, PHP Laravel, HTML, CSS, Javascript, jQuery,

Bootstrap **Infrastructure:** On Premise hosting and code repository management.

Team size: Individual

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23. Live Whiteboard

Apr 2014 – Aug 2014

This is a simple real time whiteboard application where several users can write down anything they want, and it will be reflected to the other connected users on different computers.

Technologies: ASP.NET, HTML, CSS, Javascript, jQuery, Bootstrap

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

24. Library Management System

Mar 2014 – May 2014

It is a web-based library management software for managing the daily library activities (book issue, re-issue, ISBN validation etc.) in a Government College with user friendly usage and visual aids, given that bar code generation, printing and scanning for each book has also been implemented here in a systematic manner.

Technologies: MySQL, PHP CodeIgniter, HTML, CSS, Javascript, jQuery,

Bootstrap **Infrastructure:** On Premise hosting and code repository management.

Team size: Individual

25. Transport Freight Management

Jan 2014 – May 2014

It is a web-based freight transport management software to manage the freight services (consignment services) and accounts of a freight carrier organization.

Technologies: MySQL, PHP CodeIgniter, HTML, CSS, Javascript, jQuery,

Bootstrap **Infrastructure:** On Premise hosting and code repository management.

Team size: Individual

26. Privacy Preservation via Data Mining

Feb 2014 – Mar 2014

It is a privacy preservation technique enforced on medical data sets. Privacy is preserved based on Quasi-Identifier encryption which performs iterations on the encrypted data via K-Means Algorithm to make it even more secured.

Technologies: C#

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

27. ERP

Jun 2013 – Dec 2013

A web-based system built in MVC framework which covers every aspect of requirements in maintaining a company or firm's resources. It includes all those essentials that are needed for an ERP along with special dynamic graphs and a shout-box module in the system.

Technologies: MySQL, PHP CodeIgniter, HTML, CSS, Javascript, jQuery,

Bootstrap **Infrastructure:** On Premise hosting and code repository management.

Team size: Individual

28. Institute Management System

May 2013 – Oct 2013

A web-based system built in MVC framework which covers every aspect of requirements (admission, fees, transport etc.) in an educational institute such as school and/or college. It also includes an in-built ID card generator which is all the way dynamic from fields to photos with photo resizing and cropping just on the fly.

Technologies: MySQL, PHP CodeIgniter, HTML, CSS, Javascript, jQuery,

Bootstrap **Infrastructure:** On Premise hosting and code repository management.

Team size: Individual

29. Social Networking System

April 2013 – Sep 2013 (major project for final year internship at AMTRON)

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A web based major project undertaken at AMTRON Guwahati which primarily aims to provide an area for friends to communicate with each other for information sharing (text and/or multimedia content), for making and managing a wide range of friends and contacts whilst maintaining an environment of an Online Social Community right from their homes, offices or even from the comfort of their living rooms.

Technologies: PHP Codeigniter, HTML, XML, CSS, JavaScript, jQuery,

AJAX, PHP **Infrastructure:** On Premise hosting and code repository management.

Team size: Individual

30. Windows Application [Media Player]

April 2013 – July 2013(for individual learning)

Designed and developed a media player GUI with all the minimal features of playing audio and video formats.

Technologies: C#

Infrastructure: On Premise hosting and code repository management.

Team size: Individual

31. Online Auction System

Jan 2012 – Apr 2012(mini project for college)

A web based mini- project which is primarily aimed at taking online auction to the fingertips of aspiring bidders and auctioneers across the globe. The project is inspired by the concepts of popular auction websites like www.ebay.com, www.olx.in, www.jeetle.in and www.ubid.com.

Technologies: PHP, HTML, XML, CSS, JavaScript, jQuery, AJAX, PHP

Infrastructure: On Premise hosting and code repository management.

Team size: Individual