

Satish Deshbhratar

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PROFESSIONAL EXPERIENCE

AI Software Engineer | NANU LTD, LONDON, UK

JAN 2022 - PRESENT

In collaboration with the CEO, I spearheaded the development and launch of an AI communication coach app for audio and video calls. With my architectural expertise, we accelerated development and debuted the application 6 months ahead of schedule.

- Led the end-to-end application development as the primary developer and secured a notable **43%** enhancement in performance.
- Crafted encrypted large-language models with **Langchain**, amplifying accuracy by **37%**. Enhanced utterance classification leveraging **BERT**, upholding data privacy.
- Maintained a **99.9%** database uptime, reduced processing time by **31%**, and improved system stability by **17%**.
- Seamlessly integrated frontend and backend systems, meticulously architecting for scalability and efficiency using **React**, Python **Fast API**, and **Firebase**. Prioritized robust testing protocols to ensure optimal code performance and reliability
- Orchestrated setup of **dev** and **production** environments, implementing **CI/CD** pipelines & GitHub actions.
- **Impact:** Procured **£250k** funding, underscoring the project's transformative impact.

SDE Intern | AMAZON, EDINBURGH, UK

JUNE 2022 - NOV 2022

At Amazon, I spearheaded two key initiatives: a performance metrics application via AWS Lambda for front-end evaluation and an NLP solution to curtail duplicate job applications from identical candidates.

- Designed an optimized application to evaluate the efficiency of Front-end React components, leveraging the **Profiler** API.
- Integrated Real-time User Monitoring AWS cloud service to analyze the website's metrics and created the dashboard in **Quicksight**.
- Pioneered an NLP pipeline, processing 10+ million records using **BertTokenizerFast**, and enhanced accuracy by 1.5%.
- Implemented automated **CRON** jobs for efficient data extraction from PDFs, enhancing overall workflow and productivity.
- **Impact:** My contributions enhanced system performance, improved data handling, and improved the AUC score by **0.85**.

Software Engineer | UNIVERSITY OF ABERDEEN, ABERDEEN, UK

JUNE 2021 - MAY 2022

I was a part-time developer responsible for developing and maintaining healthcare web applications for the university.

- Developed a web-based Healthcare Management application for **NHS** using C#, HTML/CSS/Bootstrap, and JavaScript.
- Collaborated closely with healthcare professionals and stakeholders, gathering requirements and feedback to ensure the applications were tailored to the specific needs of the NHS and its users, resulting in a more user-centric design and improved user satisfaction.

Technology Analyst | INFOSYS, PUNE, INDIA

JAN 2017 – JAN 2021

Pioneered an NLP chatbot for Aetna using deep learning, and further enhanced its user experience by integrating with Alexa. This innovation automated processes, yielding a significant **50%** cost reduction.

- Led a team in employing advanced machine learning methodologies and overseeing the complete ML project lifecycle, culminating in the deployment of scalable models on AWS.
- Developed healthcare insurance models using RNN, BI-LSTM, and Transformers, realizing a **27%** accuracy boost over two years.
- Partnered with SMEs to craft a **state-of-the-art** prediction engine and ML solution engine for Aetna. Encompassing scaling, caching, CI/CD pipelines, and a secure AWS Lambda-backed REST API.
- Used statistical practices to analyze current and historical data, by identifying cost savings opportunities of **\$700,000** a year.
- Reduced data processing time by **25%** by optimizing database queries and implementing **caching strategies**.
- Conducted statistical analysis and devised **automated reports** to track KPIs for monthly executive presentations
- **Impact:** Secured **\$500k** and saved the client millions by automating the process, marking a significant success for the company.

EDUCATION

UNIVERSITY OF ABERDEEN, ABERDEEN (UK)

Master of Science, Artificial Intelligence

Jan 2021 - June 2022

CGS - A2 (Distinction)

UNIVERSITY OF PUNE, PUNE (INDIA)

Bachelor of Engineering, Major in Computer Science

June 2013 - Apr -2016

GPA 3.1 / 4

SKILLS

- **Web Development:** FastAPI, Django, Flask, React.js, Node.js, Git.
- **Database Systems:** SQL, MongoDB, Firebase and DynamoDb.
- **Machine Learning / AI:** Tensorflow, Keras, Pytorch, sci-kit-learn, Apache Spark, Transformers, PySpark, Scipy, Spacy, Numpy, and Pandas.
- **Cloud Platforms:** AWS, Microsoft Azure, Google Cloud, SageMaker, Heroku.
- **Development Tools:** Docker, Kubernetes, Github & Jenkins.

AWARDS & POSITION OF RESPONSIBILITIES

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|---|-------------|
| ● Winner of Code for Good Hackathon (Team Leader) J.P Morgan | 2022 |
| ● Photographer (Landscapes and Astro) TPB photography workshops (Pune) | 2018 - 2020 |
| ● Campus Ambassador IBM (University of Pune) | 2014 - 2015 |
| ● Basketball Player National level (India) | 2009 - 2011 |