**Additional context**

**Personal Summary:** I am Surya Govindasamy Ganesan, an international student from India who studies BA Business management at the university of Leeds. I moved to the UK in 2021 to pursue my degree in business. After finishing the second year of my degree, I landed a placement programme with SAP where I work for one year in different departments to gather more experience. After finishing my one year placement programme that goes from 1st July 2023 to 31st July 2024, I will go back to university to finish the final year of my degree between September 2024 and June 2025.

Currently I am working at SAP in different departments doing a variety of work including business analysis in the programs office (creating business reports on performance and productivity), Value advisory as part of the Industry Value advisory organisation (Advising SAP customers on the business value of investing in SAP software like S/4HANA Cloud), and as an associate AI engineer in Singapore’s AI use cases team (Learning to build and evaluate RAG bots).

**Education and projects - Skills developed during the period:** I did my high school education in India at the Indian public school where I chose Maths, Physics and Computer Science as my primary subjects. I graduated from high school with an overall 95%. During my first year at university I did a business analytics module where I learnt the maths behind building different predictive models like linear regression and logistic regression. I built skills in analysing datasets and building predictive models with excel.

At the end of the first year I also managed land a part time role at an international money transfer startup called “Easy Transfer” holding a marketing role in conducting marketing campaigns with the student community and explaining the service to first time customers.

During my second year of university I ran a student society for social entrepreneurs. I led a team of 9 people that helped me conduct several events with an average footfall of 50+ students. This experience helped me develop my skills in collaboration, leadership and planning and executing a strategy.

In the second half of my second year at university I decided to build a budgeting app for minimalist students who want to control their impulse spending behaviours. It was called “the guilty project”. I finished building the app after interviewing several students who had trouble managing their finances, and I built the app with flutter for the front end and python with flask for the backend. During this time I taught myself how to build apps with Flutter and Python servers, and also learnt to host a server on the cloud.

**Placement program with SAP:** Currently during the year of my placement program, I am working in three different departments from time to time – Value Advisory, Reporting and Enablement, and AI engineering.

In the first four months of my placement I developed my skills in value selling and learnt about the B2B software space. by helping create value pitch decks for SAP’s cloud ERP products like SAP S/4HANA, Digital Supply Chain and Customer Experience products. A huge part of my role there was to create a business case for investing in SAP products by collecting customer’s operational data, identify the customer’s key value drivers and calculate expected benefit ranges for the customer in a specific industry in terms of potential new revenue generated, cost cut down and increase in sustainability.

In the second four months of my placement, I was working as an associate business analyst for the UKI Value advisory department. This meant that I created end of quarter and end of year performance reports using excel and SAP’s SAC database (SAP Analytics cloud database), highlighting trends that occurred in the period, tracking targets and analysing anomalies. I worked with tools like PowerBI, excel and SAC cloud to source data, clean them, interpret data and visualise results.

During the last five months of my placement program, between March 2024 and July 2024 I am working as an associate GenAI engineer shadowing an experienced colleague from the field where I am learning about building RAG chatbots in python and the langchain framework using open source tools, evaluating and improving their performance using the phoenix framework to evaluate their reliability, relevancy and hallucination metrics.

During the first four months of placement period I was self learning the basic’s of artificial intelligence by taking CS50’s Introduction to machine learning course where I learnt different AI algorithms that were being used before machine learning became popular like Depth first search, Best-First search, KNN algorithms.

During the second four months of the placement period, I self-taught myself machine learning in python where I learnt about the different machine learning concepts used to make predictions like Decision trees, Linear regression, Random Forests and Gradient Boosting techniques. I put these concepts into practise by building a “sales deal success predictor” project that relied on CRM data downloaded from SAC so that members of the value advisory department can prioritise which deals to support first based on how likely they are to close.

To build the sales deal predictor project I created a dataset that had information about a 100 sales deals classified as successful or lost, which included relevant variables in predicting success of a deal that were chosen based on the personal experience of my colleagues. After dividing them into training and test dataset, I tested different predictive models to predict the success of deals with cross validation in scikit-learn and identified that Random forests had the highest accuracy in predicting deal success. After tuning hyper-parameters like max depth and number of decision trees, I arrived at a model accuracy of 65%. Through experience my colleagues identified that even SAP’s internal deal prioritiser that is based on similar data sources can only offer such level of accuracy. Hence I was able to replicate the deal success predictor that we used within the company and was a fun experience where I learned about the basics of machine learning.

During the last five months of the placement period, I also self-taught myself about building deep learning models with pytorch outside of my work hours to understand the math and logic behind modern Generative AI technology. I’ve learnt about the basics of pytroch, training a simple neural network, building a convolutional neural network, using residual blocks, weight decay and learning rate scheduling to improve performance, training a neural network on GPU, the ResNet9 architecture for image classification and hyper-paramater tuning to build, train and improve the performance of a neural network while tackling the vanishing gradient problem.

**Skills I’ve developed for being an AI engineer:** During high school and university I’ve developed my python programming skills by buildings apps, servers and other side projects. During my placement program with SAP I developed my skills in machine learning and deep learning by learning to build different types of predictive models including neural networks. Working as a business analyst has allowed me to learn about data transformation, data cleaning and presenting technical information. While working as an associate GenAI engineer, I’ve learnt to build agent chains using the langchain framework in python and trace and evaluate RAG bots using the phoenix framework in python. I’ve developed all of the mentioned skills to become a high performing AI engineer. Out of all the projects I have worked on, the RAG chatbot that I built to answer questions about my CV is by far the most interesting for me.

**Job role expectations:** I want to work on a role like AI engineer or ML developer or GenAI engineer, where I get to work on interesting new ideas. I want work in a role that revolves around either building applications with large language models or other Generative technologies or training and fine tuning LLMs for specific use cases. I am looking for a minimum salary of £35k pounds, preferably in London.

**Skills that I’m trying to develop:** I am trying to develop my skills in learning to use Knowledge graphs in my langchain applications, learn to build multimodal retrieval applications and also learn to build and train transformer models to understand the basic technology that generative AI is dependant on.

**What I am doing currently:** My name is Surya Govindasamy Ganesan. I am currently both a student and in full time work. I’m studying at the university of leeds and graduating in June 2025 with Bachelor of arts in Business management. As part of my course, I am currently doing a placement program with SAP as part of my degree. So, while I am working at SAP full time as an employee, I am also a student.