

Applied GenAI Program for Tech Professionals

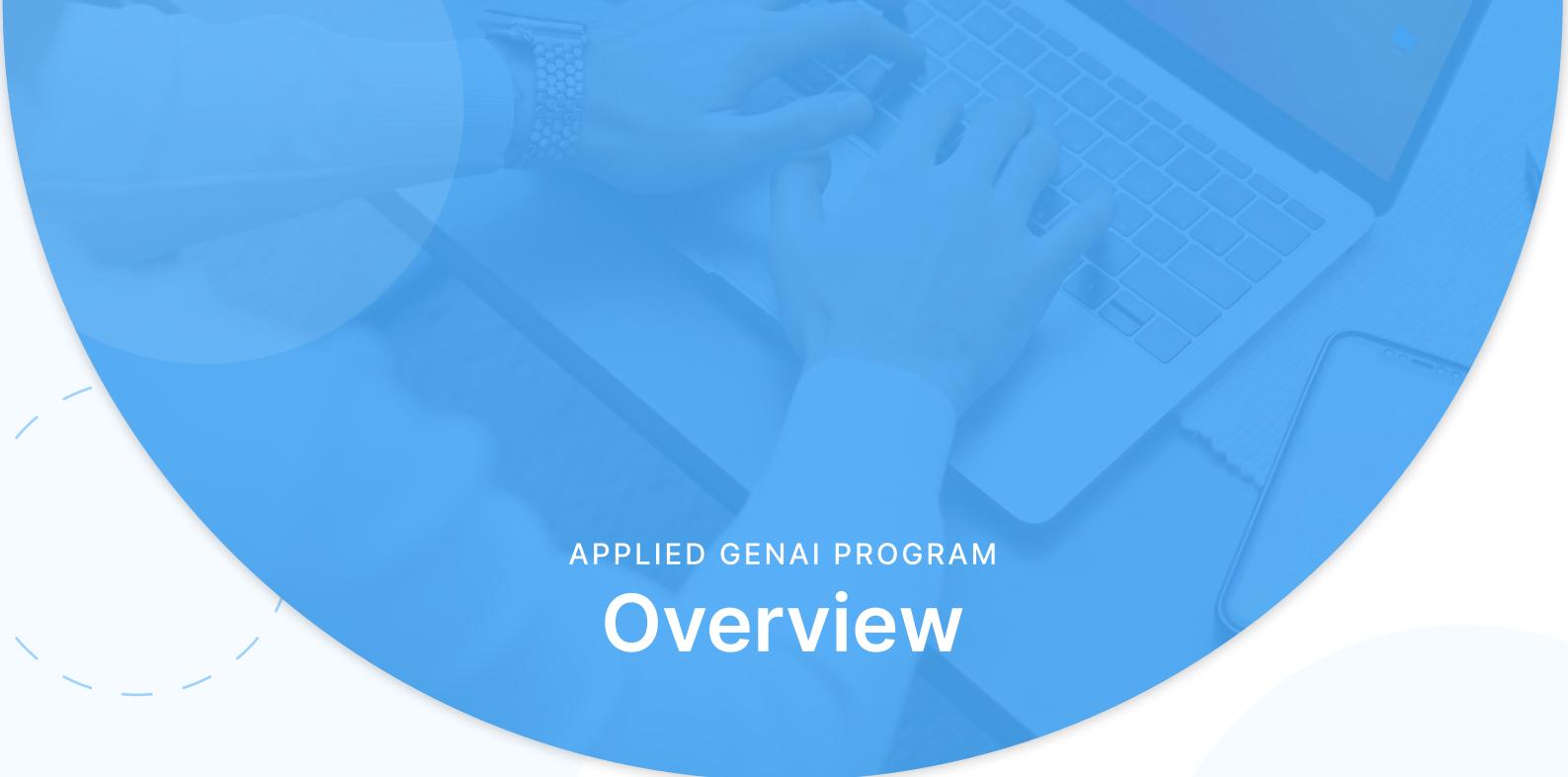
JUNE 2024



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APPLIED GENAI PROGRAM

Overview

Unlock the power of GenAI to innovate in your role and enhance your professional journey.

GenAI skills are now on the job descriptions of several tech roles, such as Software Engineers, Test Engineers, Product Managers, Engineering Managers, and Technical Program Managers.

We analyzed over 10,000 JDs to find that over 10% of the tech roles are already expected to be GenAI-enabled roles. This calls for a deeper understanding of GenAI and its potential, practical experience with generative models, and hands-on practice with GenAI tools relevant to your role.

Many tech professionals face significant hurdles due to the perceived complexity of AI, a lack of beginner-friendly resources, and the evolving nature of Generative AI technologies.

Industry insights reveal that the fast-paced advancements in AI, combined with the lack of learning pathways, often discourage individuals from pursuing careers in this dynamic field.

Our Applied GenAI Program is designed to overcome these barriers and make it easy for all tech professionals to upskill in Generative AI. Tailored for individuals without prior ML expertise, this program provides a comprehensive introduction to Generative AI, demystifying complex concepts and offering practical experience with user-friendly tools and models.

Interview Kickstart's structured curriculum and live expert-led sessions will ensure you become a GenAI-enabled tech professional and land top jobs in the industry.

Get ready to give your career a lucrative GenAI twist.

A man in a blue polo shirt and glasses is speaking to an audience. He is gesturing with his right hand. In the background, several people are seated at desks with laptops, suggesting a workshop or lecture setting.

ABOUT

Interview Kickstart

Interview Kickstart is a global leader in career upleveling, committed to elevating the careers of tech professionals by helping them land their dream jobs with top tech companies.

Our industry-acclaimed courses center around interview preparation and career transition into rapidly growing AI-related tech domains. Our instructor pool of 600+ consists of seasoned FAANG+ professionals who are your master key to landing your dream role.

Core to our training is the focus on Algorithms, Data Structures, and System Design, in addition to mock interviews, personalized coaching, resume reviews, career strategies, and valuable referrals —the essential elements for guaranteed interview success.



20,000+

Tech professionals trained



66.5%

Avg. salary hike for learners



18

Highest no. of offers received by an alum



\$1.2m

Highest salary received by an alum



\$312,275

Avg. value of offers for alums

Key highlights of IK's success

What Makes this Program Unique?

Our Generative AI program is not just another ChatGPT workshop or a Prompt Engineering Course. It is designed to cut through the complexity and open the door to the world of AI for a broader audience.

The program focuses on the key concepts, the practical application, and the strategic understanding necessary for leveraging AI in various domains, allowing you to innovate and make informed decisions in the age of AI.

Accessibility

This course is crafted to be accessible, removing the barriers to entry for those without prior ML knowledge.

Breadth Over Depth

While advanced courses often dive deep into specific areas or technologies, our Applied GenAI Program offers a comprehensive overview of the field, providing learners with a broad understanding of the potential and applications of GenAI.

Simplicity

Complex concepts are broken down into understandable segments, using language that's free of jargon and easy to grasp.

Custom Pathways

The program has four specializations in addition to the default learning path. These apply to SWEs, Product Managers, Engineering Managers, and Technical Program Managers, ensuring you learn concepts and tools most relevant to your roles.

Top Down Approach

Instead of traditional learning methods, we build using LLMs first and then deconstruct the entire pipeline, allowing learners to visualize and understand all the steps behind the tech.

Practical Focus

This course emphasizes real-world applications and hands-on learning, equipping you with the ability to apply GenAI in your projects and workplaces.

Capstone Projects

Get hands-on GenAI training and technology stack experience that companies love to see, by building your own models using Generative AI.

FAANG+ Instructors

You'll learn from leaders who have been building these systems for years. Live interactions and lessons from them will take you miles ahead compared to any recorded videos online.

Who is this program for?

Specialized Pathways

The Interview Kickstart Applied GenAI Program offers four different custom pathways for different tech professionals, in addition to the non-domain-specific modules.

- **Software Engineers**
- **Product Managers**
- **Engineering Managers**
- **Technical Program Managers**

Eligibility Criteria

Tech Professional

Who are seeking to understand Generative AI and utilize the tech to improve efficiency, productivity and innovation.

Decision-maker

Who are looking to make informed AI-related decisions in their business strategies or experimentations at work

Professional

Who want to keep up-to-date with Generative AI and all its advancements

Gain the AI Edge & Boost Your Career

Add our flagship LevelUp, StepUp, or BoostUp Interview Prep Training specific to your domain to the Applied GenAI and Advanced GenAI Programs. This ensures that you not only learn Generative AI but also prepare for top-tier tech interviews and come out ready to join a FAANG+ company.



Back-end EdgeUp

Applied GenAI + Back-end Engineering Interview Prep



Product Management EdgeUp

Applied GenAI + PM Interview Prep



Front-end EdgeUp

Applied GenAI + Front-end Engineering Interview Prep



Engineering Management EdgeUp

Applied GenAI + EM Interview Prep



Full-stack EdgeUp

Applied GenAI + Full-stack Engineering Interview Prep



Technical Program Management EdgeUp

Applied GenAI + TPM Interview Prep



Test EdgeUp

Applied GenAI + Test Engineering Interview Prep



ML EdgeUp

Advanced GenAI + Machine Learning Interview Prep



Data Science EdgeUp

Advanced GenAI + Data Science Interview Prep

Capstone Projects

SPECIALIZATIONS

OPTION 1

General Tech Projects

AI Personal Shopper

Create a personalized shopping assistant application using OpenAI's GPT-3.5 or a similar LLM, which engages with customers through natural language, understanding their preferences, budget, and needs to recommend products they'll love.

AI Customer Service Agent

Design an LLM-based customer service agent capable of understanding and responding to customer queries in natural language, which can handle real-time customer interactions.

OPTION 2

Software Engineering Projects

Intelligent Virtual Assistant for Developers

Develop a virtual assistant for software developers that can understand complex programming queries, offer coding advice and debug tips, and even write small code snippets using LLM APIs.

Intelligent Meeting Summarizer

Develop a tool that leverages LLMs to provide summaries and action items from virtual meetings. This app can transcribe conversations, highlight key points, list tasks, saving time & ensuring that important details are captured and actioned upon.

OPTION 3

Product Management Projects

AI Product Strategies, Roadmaps & Execution

Recommend user experience improvements and suggest new product features that leverage Generative AI, and create PRD/Product Strategies to integrate AI into existing products.

Capstone Projects

SPECIALIZATIONS

OPTION 4

Engineering Management Projects

AI-Driven Engineering System Enhancement

Redesign an existing engineering system to seamlessly integrate Generative AI, emphasizing the enhancement of engineering efforts through automated decision-making, and evaluate tech stack modifications and scalability.

OPTION 5

Technical Program Management Projects

Gen AI Project Lifecycle—Strategy to Execution

Develop a case study on the business integration of GenAI, detail the project management strategies used, analyze AI integration within existing systems, and include insights on ethical practices and regulatory compliance.

What you'll learn

FROM THE APPLIED GENAI PROGRAM

Python Programming Proficiency

```
1 # get random forest model
2 import numpy as np
3 from sklearn.model_selection import train_test_split
4 from sklearn.ensemble import RandomForestRegressor
5 from sklearn.metrics import mean_squared_error
6
7 # load data from train.csv
8 data_df = pd.read_csv('data/train.csv')
9 data_df['target'] = train_df['target'].values
10
11 # split the data into training and testing sets
12 X_train, X_test, y_train, y_test = train_test_split(data_df.drop(['target'], axis=1), data_df['target'], test_size=0.2, random_state=42)
13
14 # fit random forest regressor
15 rf = RandomForestRegressor()
16 rf.fit(X_train, y_train)
17
18 # predict labels for test set
19 y_pred = rf.predict(X_test)
20
21 # calculate mean squared error
22 mean_squared_error(y_test, y_pred)
```

- Understand and use variables, loops, control flow, functions & basic data types.
- Write simple Python programs and work in Colab notebooks.
- Utilize Numpy arrays and Pytorch tensors.

Generative AI Foundations

- Access foundation models via APIs and Huggingface Transformers.
- Work with models like Stable Diffusion and LoRA.
- Understand developments, applications, impact, and benchmarking in GenAI.

Neural Networks and Language Models

- Understand feedforward neural networks, activation functions, and training processes.
- Learn about RNNs, CNNs, language models, the Transformer architecture, and scaling laws.

Building and Training LLMs

- Implement retrieval-augmented generation and use LangChain for LLM applications.
- Pre-train, fine-tune, and instruction-tune LLMs
- Learn from preferences using RLHF and Direct Preference Optimization.

Generative AI for Multi-modal Applications

- Understand diffusion processes, stable diffusion, latent diffusion, and fine-tuning diffusion models.
- Apply visual transformers to various applications.
- Explore text-to-speech synthesis, music creation with WaveNet and GANs, and integrating voice with LLMs.

Mary Krishnan
Kmary@gmail.com

① Count Subsets

{input = {1, 2, 3}
Sum = 3
result = {2}}

Please Write this Big

Recursion


$$f(\text{sum}, i) = f(\text{sum} - \text{input}[i], i+1) + f(\text{sum}, i+1)$$

Sum == 0
i == input.length() || Sum < 0

Instructors and mentors

HANDLING THE PROGRAM

Our instructor pool of 500+ is packed with a dynamic network of GenAI practitioners, ML Engineers, Data Scientists, and Engineering Leaders from FAANG+ companies. There's no better way to learn than from industry leaders who are at the forefront of AI advancements.



Ahsan Ali
Applied Scientist
aws



Randy Cogill
Senior Research Scientist
amazon



Andrew Castillo
Data Scientist
covermymeds®



Shruti Goli
Senior Product Manager
incode



Ashish Kaila
FAANG+ Leader
f aNG



Arushi Prakash
Senior ML Scientist
Apple

Instructors handling the applied GenAi Program

Testimonials

WHAT OUR ALUMS SAY ABOUT US

"All of the **instructors were extremely knowledgeable and willing to help.**

Overall, [their programs are] really well put together. It is what a lot of people in the industry need to use to maintain and refresh their skills. Kudos to Soham and the team for creating this great program."

~ Jaime Lichauco, Database Engineer, Google

Omkar's classes are absolute the best part of this program. Rather than teaching to specific problems, I like how we **learn about deriving problems and using templates to solve problems.** It has given me confidence in problem solving.

~ Bruno Wu, Manager - ML Engineering, Apple

The IK program **met all my expectations.** They have well-selected problems to practice, good coaches and practice interview opportunities. All the staff are very responsive; they guide you and give excellent recommendations. I am very happy for all the support and confidence IK has given me!

~ Aliya Mussina, Senior Software Engineer, Apple

"IK was great because **its structure helped me really understand each problem in my interview.** Some highlights include a high sense of comradery in Discord was great! Had a study group and felt the engagement was much stronger than in an academic setting. Felt that the program added value with the community was very felt."

~ Mike Kane, Lead Data Engineer - Analytics, Meta

Our alums are placed at:



... and so many other top companies!



Program structure

APPLIED GENAI PROGRAM

Our learners spend 10-12 hours each week on this course. Here's what a week in the program looks like:

1

Sunday: Attend online live sessions

- Attend 4-5 hour live sessions covering concepts & applications of module concepts.
- Each class covers various approaches, is fully hands-on, and uses problems and frameworks to solve them, reflecting the latest advancements in the field.
- Live feedback & interaction with a Tier-1 instructor

2

Mon-Wed: Practice problems & case studies

- Practice the concepts taught in live sessions to solve assignments
- Live doubt-solving from FAANG+ instructors

3

Thursday: Feedback session with instructors

2-hour review session covering assignment solution walkthrough on the current week's topics and other best practices

Students also get **daily TA support** from email for individualized and detailed attention to their questions

Program Modules

WEEK 1-5

WEEK 1

Python crash course - Part 1

- Exposure variables
- Loops, control flow, functions, lists, tuples, dictionaries and basic data types.
- Writing simple Python programs.

WEEK 2

Python crash course - Part 2

- Working in a Colab notebook.
- Compute resources available on Colab.
- Numpy arrays and Pytorch tensors

WEEK 3

Hands-on with Generative AI

- Accessing popular foundation models via their APIs
- Open-source models via Huggingface Transformers
- Working with Stable Diffusion, LoRA

WEEK 4

Gen AI Background

- Introduction to Generative AI
- Key Developments and Technologies
- Applications and Impact
- Benchmarking and Performance
- Ethical Considerations

WEEK 5

Neural Networks Background

- Architecture of feedforward neural networks
- Activation functions
- Training neural networks
- Recurrent Neural Networks (RNNs)
- Convolutional Neural Networks (CNNs)

Program Modules

WEEK 6-10

WEEK 6

Deep Dive into LLMs

- What are language models
- The Transformer Architecture
- Scaling Laws

WEEK 7

Building Applications with LLMs

- Retrieval-augmented generation (RAG)
- Agents
- LangChain as a toolkit for LLM applications

WEEK 8

Training LLMs

- Pretraining LLMs
- Fine-tuning LLMs and LoRA
- Instruction Tuning
- Learning from Preferences (RLHF and DPO)

WEEK 9

GenAI for Images

- Diffusion Process (DDPM) and Stable Diffusion
- Latent Diffusion
- Fine-tuning diffusion models and LoRA
- Visual Transformers and applications

WEEK 10

GenAI for Audio

- Overview of Text-to-Speech Synthesis: Waveform Generation techniques
- Creating New Music and Sounds with WaveNet and GANs
- Voice Models and Architecture: Vocoder, Tacotron etc.
- Integrating Voice with LLMs

Career Support

If you choose the EdgeUp Program, or opt to buy the Career Pathway after your Applied GenAI Program, you also get the following services:

Linkedin Profile Building

Resume Optimisation and Professional Branding

Salary Negotiation Support

Performance-based Referrals

Job Application Strategy

Mock Interviews

Ask-Me-Anything Session (1:Many) with Career Coaches

Behavioral Interview Coaching



APPLIED GENAI PROGRAM

Alumni Benefits

Interview Kickstart alumni gain exclusive benefits designed to support your continuous growth and success in the tech industry.

Access to a Vibrant Discord Community

Connect with a dynamic network of tech professionals, GenAI practitioners, ML Engineers, and Data Scientists. Being part of one of the oldest and most successful platforms for interview preparation means you'll have access to the largest community of candidates from top companies, providing invaluable networking opportunities.

Learn from Peers and Seniors

Benefit from the shared knowledge and experiences of your peers and alumni. Engage with others who are currently taking the course or have already transitioned to their dream roles, gaining insights and advice that can help you navigate your career path effectively.

Exclusive Event Invitations

Enjoy priority access to local meet-and-greets, IK events, and webinars. As an alum, you'll receive first invites to these events, allowing you to stay updated with the latest industry trends and expand your professional network.

APPLIED GENAI PROGRAM

Certification

{ik} UPLEVEL

CERTIFICATE

OF COMPLETION

PROUDLY PRESENTED TO

Alice John

for successfully completing
Applied Generative AI Program

Ryan Valles
Ryan Valles
Co-Founder.



February 29 2024
CERTIFICATE AWARDED ON

You will receive a certificate of completion that you can proudly show to your current employers, future recruiters, and display on LinkedIn, social media, or personal website.



Enrolment Process

FOR THE APPLIED GENAI PROGRAM



Register for webinar

You are already registered for our pre-enrolment webinar - Check your email for the calendar invite, and attend the webinar. Understand everything about the program, and ask all your questions to our experts during the session.

2

Attend webinar

Once you attend the webinar, you will be able to start the enrolment process with the help of our trusted Program Advisors.

3

Connect with Program advisors

Our Program Advisors are equipped to help you understand the Applied GenAI and EdgeUp Programs and how they can help you grow in your role.

Get a 1:1 consultation with them to fast-track your enrollment!

[Talk to your Program advisor →](#)



Start your journey to AI-enablement!

Enroll in the upcoming cohort and start learning Generative AI to become an AI-enabled tech professional and land top jobs in the industry!

Still have questions?

Book a call with a Program Advisor to help you choose the right program for you.

[Talk to your Program advisor →](#)

You can also contact us via this email:
aiml@interviewkickstart.com