

# KUMARAGURU THIRUNAVUKARASU

Student | AI Engineer

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Deutsche Boerse Group,  
Germany.

## Application for Working Student/Internship in AI

Dear Recruiting Team,

I am expressing my sincere interest in AI and Machine Learning research at Deutsche Boerse Group, Germany. With a solid educational background in Computer Science and ongoing studies in Machine Learning with a specialization in Artificial Intelligence, I am excited about the opportunity to contribute to Deutsche Boerse Group's innovative AI software development.

I am pursuing a Master's in Artificial Intelligence at Brandenburg University of Technology, where I have developed a strong passion for deep neural networks, machine learning, and OpenCV. My academic focus includes neural architecture concepts for brain-computer interface models and the integration of mathematics with computational neuroscience. As a research assistant, I have gained significant experience in Optical Flow, OpenCV (Camera Calibration and 3D Reconstruction), Depth Estimation, NLP, and large language models (LLMs). Over the past four academic terms, I have dedicated myself to advancing my expertise in AI, ranging from dataset annotation to model validation. Additionally, I have substantial experience in cloud technologies, including Microsoft Azure and Docker, which have deepened my understanding of REST APIs.

Before my master's program, I worked as a Full Stack Java Application Developer at Tata Consultancy Services in India, where I developed banking applications for Euroclear Finland. This experience inspired me to deepen my understanding of AI, leading to my current role as a research assistant in the Applied Mathematics department, where I develop software interacting with machine learning models, YOLO, and deep neural networks. Concurrently, as a Working Student at the DLR Institute of Low-Carbon Industrial Process, I develop Python optimization frameworks for complex multi-energy systems, integrating NLP and QUBO solvers to enhance performance in industrial process optimization.

I am eager to contribute to Deutsche Boerse Group's AI initiatives, combining my technical expertise with hands-on industrial experience. I look forward to discussing how my background aligns with your team's goals in a personal interview.

Thank you for considering my application.

Sincerely,

Kumaraguru Thirunavukarasu