The Data and AI Business: My Story

I'm Dylan Rodrigues, and I have five years of experience working as a Software Engineer in the Fintech and AI industries. While I have not had the opportunity to work drastically on AI, I have had several opportunities to understand and play with data, particularly in my first job at Nium, a Fintech company. Here, I worked on projects such as RaaS (Remittance-as-a-Service) (Nium, 2020), where data security and compliance were essential. As far as data governance is concerned, we used platforms like Onfido (Onfido, 2021) and Jumio (Jumio, 2021), which required users to record themselves live with their identity card to verify their residency status in a country. These platforms used AI to assess the legitimacy of users, ensuring that our system accepted only authenticated users during the onboarding journey, thereby ensuring compliance with KYC (Know Your Customer) and AML (Anti-Money Laundering) regulations. Besides this, we also used Sift (Sift, 2021)—again a machine learning-based platform—to detect fraudulent transactions and prevent financial crime. Even though AI automated most of the process, we still had a backend team that manually reviewed flagged transactions to verify compliance with international banking regulations and ethical considerations surrounding AI-driven fraud detection. Through this experience, I developed a strong appreciation for the role of AI in secure and ethical data processing, ensuring responsible usage while mitigating risks.

Looking ahead, I want to work as a Deep Learning Research Engineer. My interests prominently lie in Deep Neural Networks and exploring creative ways to enhance their algorithms. However, I recently browsed through the projects I ought to pursue next semester and was fascinated by the Aircraft Classification project under the supervision of Collins Aerospace. Besides just, probably, landing a job at Collins Aerospace, where I will get an opportunity to leverage my skills in Deep Neural Networks, I would appreciate working for the company due to some of their initiatives in data governance and AI ethics. Their commitment to responsible AI-driven product design and development aligns with my interest in ensuring that AI systems remain transparent and accountable. Their work on Autonomous Systems (RTX, 2025), where they strive to enhance safety and operational efficiency in aviation, defense, and space, demonstrates how AI can be used ethically in high-stakes industries. Additionally, their collaboration with C3 AI (AI, 2025)for national security and defense applications highlights the growing need for ethical considerations in AI-driven decision-making. As I progress in my AI journey, I aim to contribute to projects that prioritize ethical AI development, ensuring fairness, transparency, and compliance with global AI governance frameworks.

In the previous semester, I watched and was taught about several videos about humanoid robots—AI-driven machines that not only resemble humans but are also designed to function in social environments. While this is a phenomenal advancement in AI, I understand that practitioners are confronted with both social and ethical challenges. One of the biggest concerns is privacy, as these robots will increasingly handle critical and confidential data. This could have severe ethical implications, such as data privacy breaches (Association, 2025) (AI, 2025) (AI, 2025; Association, 2025), unauthorized surveillance, and the misuse of sensitive information. Without strong governance policies and ethical guidelines, humanoid robots could pose cybersecurity threats, reinforcing biases in AI-driven interactions, and making decisions without clear accountability. If we imagine a world where these systems

lack oversight, they could be exploited for cybercrime, social manipulation, or unethical data collection. Regulations like GDPR in Europe and similar frameworks worldwide attempt to mitigate such risks, but there remains a gap in governance regarding AI autonomy and ethical responsibility. As AI advances, it is crucial to develop governance structures that hold AI systems accountable, ensure transparency, and prevent misuse in critical applications like law enforcement, healthcare, and finance. Only through strong ethical frameworks and responsible governance can we harness AI's potential without compromising security, privacy, or trust in technology.

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