

Statement of purpose

I am excited to apply to the graduate program of Computer Science at your esteemed University. As a recent graduate of the Eritrea Institute of Technology, where I earned a degree in computer science. I am excited to pursue a graduate degree and specialize in Computer Science with a concentration on Software development and AI. I believe that this program will provide me with the necessary skills and knowledge to create innovative software solutions that leverage AI and data analysis techniques.

My academic journey towards the field began at a young age, when I was always amazed and puzzled by how smart tools such as chatbots, smart doors and fingerprint verification work. As I grew older, my passion deepened, and I decided to pursue a degree in Computer science at the Eritrea Institute of Technology. The program provided me with a broad foundation in computer science concepts and a strong foundation in programming languages such as Java, Python, C++, and PHP. Through various projects and assignments, I have gained hands-on experience with data structures, algorithms, Software engineering principles, and data analysis.

During my undergraduate studies, my strong background in mathematics also helped me find creative ways to solve complex problems related to data analysis, and Python was my favourite programming language. In addition to my regular classes, I continued to expand my knowledge and skills in programming languages. In 2019, during my college sophomore year, I completed a rigorous Java programming course at the Polytech Vocational Centre in Asmara. In this course, I was introduced to object-oriented programming, algorithm generation, and database connectivity. I also worked as a backend Java developer on an assessment project where I and 4 other classmates developed a hotel reservation system. My final year project in college was to integrate advanced email scraping algorithms into an online registration and payment confirmation system to automate and improve the efficiency of the system using PHP and JavaScript. The project proved to be particularly challenging, as the lack of sufficient internet access and research resources in Eritrea presented a significant obstacle. However, I remained undaunted and drew on my strength of being a target-focused and committed individual. As both the team leader and developer, I was responsible for finding creative solutions to complex technical problems, motivating my team to persevere through the work. Our hard work paid off, and we successfully delivered the project within the allotted time.

These experiences have helped me develop key skills and attributes that are highly valued in the computer science industry. From technical problem-solving to effective communication and team management, I have learned how to overcome obstacles, stay focused under pressure, and lead teams to success. After I graduated top-of-the-class and was working as a Lab technician at

Faith Mission High School as part of my national service duty, I had the opportunity of working with an experienced computer engineer as a part-time Python developer and assisted him in his project to develop a real-time facemask detection-based door lock. The project was a real-life work experience where I was responsible to design and implement a complex system, leveraging skills in data pre-processing and model training and deployment. I used the OpenCV library to process images and videos and I also had to implement different algorithms for data training and to build models. So, I became familiar with TensorFlow and Keras too. The project helped me see the future of our world and technology through the lenses of Software and AI engineering. It was after this experience that I decided I must specialize in software development. This is the main factor that has driven me to pursue a master's degree in computer science.

My motivation for applying to the graduate program at the University of Padua stems from its reputation as one of the top universities in Europe. The faculty's commitment to excellence in research and teaching and the Department of Computer Science's expertise in the areas of computation and IT are the reasons why I am impressed by the university. I believe that studying at your university will provide me with a unique opportunity to learn from some of the best minds in the field of computer science. The university has a strong track record of producing graduates who are well-equipped to handle the challenges of the modern world. I am confident that attending the program at your university will provide me with the cutting-edge skills and knowledge necessary to achieve my career goals.

My preferred career path after graduation is to work as a software engineer or researcher in top-tier tech companies that are investing in the areas of Artificial Intelligence, Robotics, and the Internet of Things. I believe that your graduate program will provide me with the industry-level skills and knowledge required to attain this goal.

Enthusiastic and excited about the future of the IT industry and Passionate about solving complex problems through technology, I seek to enhance my skills and knowledge in software development by pursuing a master's degree in Computer Science at your university. I am confident that my academic and personal background, combined with my passion for computer science and leadership skills, will make me a strong candidate for the program.