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Introduction

As an assistant professor specialising in artificial intelligence (AI), I am passionate about advancing the field through research while mentoring the next generation of AI professionals. I aim to bridge the gap between theoretical AI concepts and their real-world applications in the classroom. This dual commitment to both research and teaching enables me to cultivate a dynamic learning environment where students are encouraged to engage deeply with AI concepts and explore how they can be applied to real-world challenges.

This teaching portfolio serves as a personal reflection on my journey as a teacher, showcasing my progress and the effectiveness of my teaching style. It provides insights into my teaching philosophy, objectives, methods, and experiences. By documenting these elements, I aim to continuously refine my pedagogical approach, ensuring alignment with the goals of my institution and, most importantly, contributing to the success and development of my students.

Teaching Philosophy, Objectives and Goals

My teaching philosophy is centered on the belief that education is not merely the transfer of knowledge but an interactive, dynamic process that empowers students to think critically, creatively, and solve problems. I strive to create an environment where students are active participants in their learning journey, not passive recipients of information. Through inquiry-based methods, hands-on activities, and real-world applications, I encourage students to ask questions, challenge concepts, create new ideas, and connect theoretical knowledge to practical scenarios. This approach deepens their understanding and equips them with the skills needed to navigate complex real-world challenges, fostering both intellectual and personal growth.

My teaching objectives are focused on helping students develop the critical thinking and problem-solving skills essential for success in the field of AI. I aim to create an environment where students feel encouraged to think creatively, tackle challenges with confidence, and collaborate effectively with their peers. By integrating real-world applications and current research into the course content, I ensure that students can see how theoretical concepts are applied in practical settings. This approach bridges the gap between classroom learning and real-world problem-solving.

As a teacher and supervisor, I am committed to equipping students with the skills and mindset essential for thriving in both academia and industry. My goals include:

♦ ***Fostering Intellectual Growth:*** I aim to cultivate a deep understanding of teaching concepts among my students, encouraging them to think independently and innovate.

♦ ***Encouraging Practical Application:*** By incorporating real-world problems and case studies into my teaching, I prepare students to apply their knowledge in practical settings, bridging the gap between theory and practice.

♦ ***Promoting Research Excellence:*** I supervise Ph.D., master's, and bachelor's students, guiding them through their research projects. My goal is to develop their research skills, from formulating questions to conducting experiments and presenting their findings.

♦ ***Developing Collaborative Skills:*** I emphasise the importance of teamwork and collaboration, helping students learn to work effectively with others, both within and outside of their field.

♦ ***Supporting Career Readiness:*** I strive to ensure that my students are well-prepared for their future careers, whether in academia, industry, or research institutions. This includes providing guidance on professional as well as personal development.

Teaching Analogy and My Role

I view my role as a guide and facilitator rather than a traditional teacher. I believe learning is a dynamic, two-way process in which students actively construct their own knowledge. My goal is to inspire curiosity and a passion for learning while providing the necessary tools and guidance to help students unlock their creativity, develop critical thinking skills, and apply their knowledge in meaningful ways. By fostering an environment of exploration, critical inquiry, and hands-on application, I help students build the skills they need to excel academically and professionally.

To achieve this, I emphasise student-centered learning, recognising that each student brings a unique set of experiences, strengths, and challenges. I tailor my teaching strategies to accommodate these differences. Incorporating active learning strategies, such as group discussions, problem-solving tasks, and hands-on projects. I create an environment where students feel empowered to take ownership of their learning. In this space, I am not simply delivering content but facilitating an ongoing dialogue that encourages students to question, explore, and apply their ideas. Collaborative learning is also a key element of my approach, enabling students to share perspectives, learn from one another, and solve problems collectively. This not only enhances understanding but fosters a sense of community and shared responsibility in

the learning process.

Recent Teaching Experience

2025	Tools of Artificial intelligence (SDU, Denmark), 5 ECTS
2023-2024	Artificial Intelligence for Healthcare Data (SDU, Denmark), 5 ECTS
2024	Applied Mathematics (SDU, Denmark), 5 ECTS
2023	Calculus and Linear Algebra (SDU, Denmark) , 5 ECTS
2022	Estimation, Detection and Classification (NTNU, Norway), 7.5 ECTS
2022	Digital Signal Processing (NTNU, Norway), 7.5 ECTS

Supervision Experience

Ph.D. Thesis	4 (Ongoing)
Master Thesis	4 (Completed), 2(Ongoing)
Bachelor Thesis	1 (completed), 1 (Ongoing)

Pedagogical Training

In addition to my research and teaching responsibilities, I actively seek opportunities for pedagogical development. I successfully completed the formal Lecture Training Programme (LTP) at SDU, Denmark, which provided valuable insights into diverse teaching strategies, including active learning and flipped classrooms. These experiences have significantly shaped my teaching approach, enabling me to refine methods for engaging students effectively and fostering a collaborative and dynamic learning environment.

Pedagogical Considerations

♦ ***Interactivity and Engagement:*** I use a variety of teaching methods, including lectures, interactive discussions, hands-on projects, and group work, to cater to different learning styles and keep students engaged.

♦ ***Continuous Feedback:*** I prioritise continuous feedback through regular assessments, quizzes, and class participation to ensure that students are keeping pace with the material and to identify areas where they need additional support.

♦ ***Research Integration:*** By integrating my ongoing research into the course content, I provide students with insights into the latest developments in the field and encourage them to contribute to research projects.

Teaching Methods

The selection and application of effective teaching strategies are crucial for optimizing learning outcomes. My teaching methods include:

♦***Classroom Teaching Sessions:***

* *Lecture:* Fusing traditional lectures with interactive discussions to engage students and encourage participation.
* *Collaborative Learning:* Facilitating group activities that promote collaborative learning and peer-to-peer support.
* *Hands-on Activities*: Providing practical exercises that allow students to apply theoretical concepts.

♦ ***Homework and Projects:***

* *Project-Based Learning:* Asking students to solve real-world problems using the concepts learned in class.
* *Group Work:* Encouraging teamwork and collaboration through group assignments.
* *Use of Technology:* Incorporating digital tools and resources to enhance learning and engagement.
* *Flipped Classroom:* Implementing a flipped classroom model where students review materials before class and engage in interactive activities during class time.