UNIVERSITY OF TWENTE.

FACULTY OF BEHAVIOURAL, MANAGEMENT & SOCIAL SCIENCES

FROM
Dr. M. Amir Haeri
+31 53 489 7634
m.amirhaeri@utwente.nl

DEPARTMENT
CoDE

COPY TO

DATE
11 Jun 2024

OUR REFERENCE
BMS.CoDE.24.045

YOUR REFERENCE

PAGE
1 of 2

SUBJECT
Letter of recommendation

To whom it may concern,

I am writing to recommend Dr. Ana Maria Sousa. During her time at the Section of Cognition, Data, and Education at the BMS faculty of the University of Twente, I supervised and collaborated with Ana. Her dedication to advancing artificial intelligence, combined with her insights from neuroscience, contributed significantly to the development of robust solutions.

Her research on developing and publishing unsupervised and semi-supervised deep learning pipelines for EEG anomaly detection has been groundbreaking. She has implemented and optimized robust algorithms, achieving a sensitivity of 81.9% and a specificity of 91.7%, setting a high standard for the field. Her expertise in generative modeling, including autoencoders, VAE, and implementations of VAE-GANs and diffusion models, demonstrates her ability to innovate and understand complex topics.

As Ana's supervisor, I observed her exceptional problem-solving skills, communication abilities, autonomy, and self-motivation. Proficient in TensorFlow, Keras, and Python, Ana excels in designing and evaluating complex generative models and algorithms. She has significantly advanced EEG anomaly detection and provided valuable insights into generative approaches. Ana consistently translates complex research questions into practical, data-driven solutions, demonstrating her commitment to using AI to solve real-world problems.

Beyond her technical skills, Ana possesses soft skills crucial for any research scientist or engineer. Her curiosity, adaptability, and empathy drive her to seek innovative solutions that advance technology and positively impact society. Ana is an exceptional team player. Her role in interdisciplinary projects, where she worked closely with other researchers and clinicians, highlights her ability to contribute to a collaborative research environment. Her strong communication skills and proactive approach have fostered a collaborative and productive research atmosphere. Ana's enthusiasm for sharing knowledge and engaging in stimulating discussions has greatly benefited our team.

Ana completed several relevant curricular units during her studies, including Biological/Medical subjects, Machine Learning, Advanced Topics in Artificial Intelligence, Computer-Aided Diagnostics, and Algorithms and Data Structures. Therefore, it is my pleasure to recommend Ana for any position, whether in research
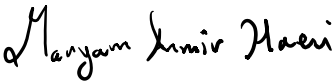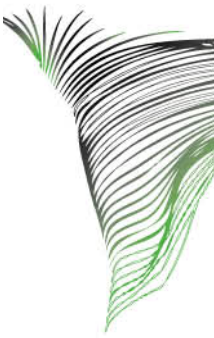
UNIVERSITY OF TWENTE.

or industry. I am confident that she will be a great addition to your team, particularly in roles related to Artificial Intelligence and generative AI. Ana is an exceptional candidate who brings a unique perspective to any team, and I am certain that she will make a valuable contribution to your organization.

Sincerely,

Dr. Maryam Amir Haeri
Assistant Professor
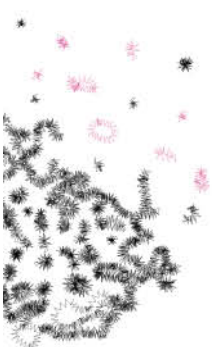
Subject: Letter of Support to the Application of
Ana Maria Amaro de Sousa

To Whom It May Concern,

I am writing this letter of recommendation for Ana Maria Amaro de Sousa, whom I had the privilege of supervising during her Master's degree in Bioengineering at Faculdade de Engenharia da Universidade do Porto (FEUP).

Ana has consistently impressed me with her high level of autonomy, self-motivation, and willingness to learn new techniques. She is a hard-worker who is always looking for ways to improve her skills, and she has demonstrated an ability to quickly learn advanced concepts and explain them in a simple way, adapting to the people she is working with.

As her thesis supervisor, I had the opportunity to witness Ana's exceptional problem-solving skills. Her Master's dissertation, in which she applied deep learning methods to adapt state-of-the-art image and video captioning approaches to generate automated preliminary clinical reports directly from the EEG signal, demonstrates her scientific and technical abilities.

During her studies, Ana completed several relevant curricular units, including Machine Learning, Advanced Topics on Artificial Intelligence, Computer-Aided Diagnostics, and Algorithms and Data Structure. Additionally, she was an active member of the IEEE Engineering in Medicine and Biology at the IEEE UP Student Branch from 2021-2022, where she had the opportunity to connect with other professionals in the field and deepen her knowledge.

Overall, I highly recommend Ana for any position related to Artificial Intelligence, as she has the knowledge, skills, and drive to excel in any project she takes on. She is an exceptional candidate who will bring a unique perspective to any team, and I am confident that she will make a valuable contribution to your organization.

Porto, April 20th, 2023

Luis Filipe Pinto de Almeida Teixeira
Assistant Professor
Department of Informatics Engineering
Faculdade de Engenharia
Universidade do Porto

JOÃO RIBEIRO PINTO

João Ribeiro Pinto, Ph.D.
Senior Deep Learning Researcher
Bosch Portugal
Rua do Barrio
4705-629 Braga
Portugal

jtrpinto@gmail.com
Braga, Portugal
in/jtrpinto
0000-0003-4956-5902
user=hhF9Q8kAAAAJ
profile/Joao_Ribeiro_Pinto

Subject: Letter of Recommendation of Ana Maria Sousa

Dear Sir/Madam,

In 2021, as Assistant Researcher at INESC TEC (Porto, Portugal), I had the pleasure of supervising Ana Maria Sousa on a summer internship on the topic "Real-Time Driver Drowsiness Recognition System".

Her work was aligned with the AUTOMOTIVE project, focused on automatic driver drowsiness monitoring for smart vehicles. Her work has contributed significantly to this project, specifically in the processing of data and annotations and the evaluation of deep learning architectures for the classification of drowsiness levels.

Despite the short duration of her internship, Ana Maria explored deep learning-based object detection solutions for faces and face landmarks in video images and implemented deep belief networks for dynamic fusion and classification of three levels of drowsiness (alert, moderate drowsiness, and severe drowsiness). Throughout the work, she has consistently shown a high level of autonomy and self-motivation. She has also displayed a great capacity to quickly learn advanced concepts and critically analyse her results in search of improvement.

Faced with all this, it does not surprise me to see that Ana Maria has found success after this internship, even beyond borders during her stay in the Netherlands. As such, it is my pleasure to endorse and recommend Ana Maria for any position, in the academia or industry, involving pattern recognition and computer vision. I am sure she will make a great addition to your team.

Sincerely,

João Ribeiro Pinto

more info at
jtrpinto.github.io