



FABRICIO NARCIZO

Senior AI Research Scientist
Part-Time Lecturer



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ABOUT ME

I am a result-oriented and well-organized professional with a great team player's expertise, committed to building knowledge collectively and delivering results in the short term. I am committed to the company and the projects, working hard to achieve the goals. I maintain excellent interpersonal relationships with the team at all levels, improving a highly structured professional competence to lead teams.

I hold a broad knowledge of prominent academic and industry programming tools and fluency in mathematical models, algorithms, statistics, and data analysis. Through my research background, I have developed the initiative to find new solutions in collaboration with partners, teams, and research groups. I also enjoy learning new programming languages and tools to remain at the forefront of the latest technologies and solutions, always offering the most efficient solution for the challenges.

My recent academic and industrial activities stand out in computer vision, machine learning, and human-computer interaction. I am involved in the development of innovative miscellaneous project cases, such as intelligent agent assistants, multimodal interaction models for meeting rooms, web-based eye-tracking data analysis tools, eye trackers for sports analysis and disabled people, eye-based interaction for mobile platforms, voice user interface for domotic systems, artificial intelligence for dyslexia pre-diagnosis, modular cryptography applications, and infrastructure projects.



WORK EXPERIENCE 1/2

SENIOR AI RESEARCH SCIENTIST

📅 Jan 2021-Current 🌐 GN Hearing AS (Jabra) / Denmark

- Getting funds from Danmarks Innovationsfond for an Industrial Ph.D. project (2M DKK) and a Postdoctoral research project (2.7M DKK).
- Supervising an Industrial Ph.D. candidate and an Industrial Postdoctoral in collaboration with the IT University of Copenhagen (ITU).
- Organizing tutorials and demos to present the technologies developed by the Video Technology team during the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2024 and CVPR 2025).
- Managing the Jabra Meeting Assistant project, an AI agent that uses multimodal models to improve the usability and user experience during virtual and hybrid meetings.
- Managing the Whiteboard Activity Detector project, a novel machine learning model to detect when the user interacts with a whiteboard in a meeting room or a classroom.
- Implementing generative gaze correction models to keep eye contact and improve users' engagement during hybrid and virtual meetings.
- Developing multimodal neural networks and deploying the models on the edge to execute at the hardware level on Jabra collaboration business cameras.
- Implementing the ExPy software, an experimental zone to test all models implemented by the Video Technology team in Ballerup, Denmark and Cupertino, CA, USA.

PART-TIME LECTURER

📅 Jan 2020-Current 🌐 IT University of Copenhagen / Denmark

- Course manager and teacher of Data Mining course (DAMIN) in the MSc. Software Design program since 2024.
- Course manager and teacher of Mobile App Development course (MOAPD) in the BSc. Software Development program since 2019.
- Teacher and internal examiner of Programming Mobile Applications (PMA) in the MSc. Software Design program since 2023.
- Supervisor and co-supervisor of 1 Postdoc Researcher, 2 Ph.D. Students, 18 Master Students, and 33 Bachelor Students.

SENIOR SOFTWARE ENGINEER

📅 Jan 2019-Jan 2021 🌐 Orbital ApS / Denmark

- Developing smooth pursuit methods for eye-tracking interaction without calibration.
- Implementing interpolation-based gaze estimation methods for appearance-based eye-tracking systems.
- Designing and implementing an eye-tracking framework for mobile platforms (iOS and Android) using the C/C++ programming language.
- Developing a multi-language word prediction and a word completion using recurrent neural networks in development mode (Python) and production mode (C/C++)
- Development of an eye-tracking analytic web platform using Node.js and PostgreSQL.
- Maintaining several eye-tracking apps developed using Swift and Objective-C.

POSTDOCTORAL RESEARCHER

📅 Aug 2017-Dez 2019 🌐 IT University of Copenhagen / Denmark

- Developing an eye tracker (hardware and software) based on the ITU's gaze tracking patented method (WO 2016/124668 A1) for automatic device calibration.
- Teaching for bachelor's and master's students in Pervasive Computing, Image Analysis and Machine Learning, and Qualification Seminar Programming courses.
- Reviewing articles for IEEE Transactions on Pattern Analysis and Machine Intelligence and the International Journal for Computer Assisted Radiology and Surgery.



WORK EXPERIENCE 2/2

ASSISTANT PROFESSOR

Mar 2010-Feb 2012 Mackenzie Presbyterian University / Brazil

- Teaching for 1251 students in several IT subjects, e.g., Data Structures, Digital Image Processing, Digital Image Synthesis, Logic, Programming Languages, Web Technology.
- Collaborating on the curricular program course planning as a member of the collegiate.

ASSISTANT PROFESSOR AND SUPERVISOR

Feb 2007-Jan 2012 Bandeirante University of São Paulo / Brazil

- Teaching for approximately 1889 students in several IT subjects, e.g., Advanced Topics of Programming, Algorithms and Data Structures, Programming Languages, Logic, Web Development, Computer Architecture.
- Supervising two scientific initiation projects involving Residential Automation, Speech Recognition and Text-to-Speech Technologies for bachelor students.

MASTER STUDENT RESEARCHER

Aug 2005-Nov 2008 Technological Institute of Aeronautics / Brazil

- Coding several cryptographic algorithms in a governmental project inside the university.
- Building a cryptographic SDK and implementing a full cryptographic system named CryptonITA, specialized in file encryption and digital signature, based on OpenSSL library.
- Modeling a robust iris detector based on the Hough Transform circle detector.
- Developing a low-cost eye-tracking system with a virtual keyboard to assist disabled people in the computer interaction process for an amount of \$20 in hardware material.
- Collaborating on developing a home automation system (Domotic) applying speech-



EDUCATION

PH.D. IN COMPUTER SCIENCE

May 2014-Nov 2017 IT University of Copenhagen / Denmark

Thesis: Using Priors to Improve Head-Mounted Eye Trackers in Sports
Supervisor: Dr. Dan Witzner Hansen

MASTER IN COMPUTER & ELEC. ENGINEERING

Aug 2005-Nov 2008 Technological Institute of Aeronautics / Brazil

Thesis: Eye Tracking as an Interaction Mechanism for Disabled People
Supervisor: Dr. Carlos Henrique Quartucci Forster

BACHELOR IN COMPUTER SCIENCE

Feb 2002-Sep 2005 University of the West of Santa Catarina / Brazil

Thesis: Image Pattern Recognition for the Development of an Eye Mouse
Supervisor: MSc. Lilian Jeannette Meyer Riveros

PROFESSIONAL ACTUALIZATION COURSES

- May 2020 - Teknosofikum - IT University of Copenhagen / Workshop
- Oct 2019 - Project and Thesis Supervision - IT University of Copenhagen / Seminar
- Oct 2019 - Exam Seminar - IT University of Copenhagen / Seminar
- Jan 2019 - Statistical Inference- Johns Hopkins University / Coursera Online
- Nov 2018 - Career & Living in Greater Copenhagen - University College Absalon / Lectures
- Sep 2018 - Reproducible Research - Johns Hopkins University / Coursera Online



COMPUTER SKILLS



C, C++, C#, Java, Kotlin, Objective-C, Swift, Python



DLib, OpenCV, OpenSSL, QT, Torch, TensorFlow, Scikit-Learn, ARKit



MATLAB, Octave, R



PL/SQL, MySQL, PostgreSQL



JSP, ASP, PHP, HTML, CSS, Node.JS, JavaScript, TypeScript, XML



Linux, Windows, macOS, Docker



DHCP, DNS, FTP, SSH, Proxy, Mail, Firewall, Domain, Database, Printing Servers, Shell scripts



LaTeX, BibTeX, TikZ



Arduino, Electronics, Microcontroller



3D Printing, Drivers



LANGUAGES



PORTUGUESE

Native



ENGLISH

Proficient



DANISH

Beginner



DIVERSE

- Jury member and contributor to the EDITx Student Challenge Europe.

- Associated researcher at the EyeInfo Research Group from ITU.

- Ph.D. and Master financed by the Brazilian governmental CAPES and CNPq agencies for scientific and technological development.

- Volunteer in Coding Pirates Denmark to teach IT for children and young people.