

Bornberg

Curriculum Vitae

Name
Birth
Contact
Twitter | Website
Languages I
Languages II

Christina Elena Bornberg, BSc
19.07.1997, Bregenz / Austria
+43 699 19283227 | christina.bornberg@outlook.com
twitter.com/variint | variint.github.io/
German (native), English (C1), Chinese (A1), French (A1)
Python (PyTorch, TF, sk-learn), C, C++, Java, Matlab, Assembler, VHDL, VAL3

SUMMARY

Electronics graduate, specialising in medical image analysis for ophthalmology. Work and study experience abroad. Co-leading an international, interdisciplinary space project. Member of MICCAI, IEEE BME, WIA-E. Volunteer at Red Cross.

EDUCATION

2021 – 2023

MEDICAL IMAGING AND APPLICATIONS – MAIA (MSC)

- + Erasmus Mundus Joint Master's scholar in France, Italy and Spain

2016 – 2021

ELECTRONICS (BSC)

- + UAS Technikum Wien (Semester 1,2,6)
- + Erasmus+ exchange year: Loughborough University (Semester 3,4)
- + Semester abroad: University of Southampton (Semester 5)

2011 - 2016

IT AND MEDIA TECHNOLOGY (HIGH SCHOOL DIPLOMA)

- + Technical High School – HTL Wien 3 Rennweg

EXPERIENCE

Oct. 2022 – Feb. 2024

SINGAPORE EYE RESEARCH INSTITUTE (SERI): Research Officer

- + Domain adaptation for OCT images (PyTorch)

Sep. 2022

EURETINA CONGRESS: Science Communicator

- + Advances in diagnosis of retinal disease and AI (Twitter)

Summer 2021

UNIVERSITY COLLEGE LONDON: Summer intern (8 weeks)

- + Vessel segmentation of fetoscopy image data (PyTorch)

2020/21

MEDICAL UNIVERSITY OF VIENNA: Undergrad Researcher (9 months)

- + Classification of fluorescein angiography images (PyTorch, Pydicom)
- + Deep Learning Journal Club

2020

AUSTRIAN RESEARCH INSTITUTE (OFI): Undergrad Researcher (5 months)

- + Segmentation of microscopy images with different CV libraries (OpenCV, OpenIMAJ, Matlab Image Processing Toolbox)
- + ANOVA of medical device packaging (scikit-learn)

2014 - 2020

OTHER INTERSHIPS

- + SkillDisplay (2017-2020), TYPO3 Editor, blogging, social media
- + Alpen-Adria University Klagenfurt (4 weeks – 2015), Embedded Systems
- + A1 Telekom Austria (4 weeks – 2014), IT Services

Since 2011

RED CROSS: Volunteer

- + Austria: Red Cross Youth/First aid, Disaster relief team, tutoring
- + UK: LSU British Red Cross Society (2018/19)
- + Singapore: Singapore Red Cross (2023)

CONFERENCES

2022

MICCAI: BEST PAPER AWARD, DART WORKSHOP

- + "SISSI: Seamless Iterative Semi-Supervised Correction of Imperfect Labels in Microscopy Images" (MAIA)

CRAS: ORAL PRESENTATION, IMAGE SEGMENTATION SESSION

- + "Semi-supervised Placental Vessel Segmentation with Majority Voting for Pseudo-label Updating" (UCL)

2021

IAC: BEST INTERACTIVE POSTER (CATEGORY D/INFRASTRUCTURE)

- + "Concept of Operations for a Neptune System Mission" (Conex Research)

2020

MICCAI: POSTER AND PRESENTATION, LABELS WORKSHOP

- + "Training data preparation with computer vision algorithms for a Mask R-CNN" (UAS Technikum Vienna, OFI)

COURSES

Certificates

- + GAMP 5 seminar
- + GCP certificate
- + Hubspot academy – inbound marketing certified
- + TYPO3 CMS Certified Editor
- + Project Manager IPMA Level D certificate

Summer schools

- + Denmark SDU Summer School (Deep Learning, Python): 2019
- + Romania SSIMA (MedTech, Python): 2019, 2022
- + ESA Alpbach Summer School (Geophysics using CubeSats): 2019
- + Tallinn Summer School (Storytelling and Illustration): 2019

Hackathons

- + BR41N.IO (Machine learning for BCI, MATLAB)
- + CCHack (Sustainability, RaspberryPi)
- + Vienna Techstars Startup Weekend Women

PROJECTS

2020 – 2023

CONEX RESEARCH

- + Co-lead of space mission design research organisation
- + Multiple conference papers: GLEX 2021, BIS 2021, IAC 2021, IAC 2022

Since 2016

UNIVERSITY PROJECTS

- + DecentNet – Disentangled CNN (PyTorch)
- + SISSI – Semi-supervised domain adaptation (PyTorch)
- + Bachelor's thesis: "Comparison of manual and algorithm based annotated training data for a Mask R-CNN", passed with distinction (Keras + TF)
- + IoT project (NXP, RIOT-OS)
- + Model rocket engine, Loughborough Space Society (Arduino Due)
- + Maze solving robot (Arduino Uno)
- + XMCarl: Remote control car (XMC)
- + Hidden Demon Game (C, GStreamer, GTK+)

2013 – 2016

TECHNICAL HIGH SCHOOL PROJECTS

- + A-Levels project: Hovering Steward - Autonomous flying waiter (Hex-rotor) Embedded C (PIC), Finals of 7 awards (2015/16)
- + Fictitious company "Bezany", PMA Junior Award Finals (2015/16)