### THYBAULT ALABARBE

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#### **EDUCATION**

- 2015-2020 → Ivry-sur-Seine (France), ESIEA: Graduate School of Engineering: 5th year
- esiea GRADUATE SCHOOL OF FUNDING FRIDGE
- 2018  $\rightarrow$  Ivry-sur-Seine (France), ESIEA:

Companieros & SII, Handimanager Label, management of handicapped people

- 2016 → Ivry-sur-Seine (France), ESIEA: TOEIC-915
- $2016 \rightarrow$  Igny (France), Lycée Saint-Nicolas: BAFA level 1
- 2015 → Bourg-la-Reine (France), Institut Notre-Dame:
   Scientific High School Diploma (Biology) with merit
- 2010-2012 → Bourg-la-Reine (France), Institut Notre-Dame: Cambridge (PET & FCE)

#### LANGUAGES

- Native: FrenchBilingual: EnglishConversational: Spanish
- Beginner: Japanese, Ancient Greek, Latin

## **PROJECTS**

-  $2019\text{-}2020 \rightarrow \text{NCM-Forest}$ 

Compative study of FPGAs and GPUs for the implementation of the NCM-Forest algorithm

-  $2018\text{-}2019 \rightarrow \text{TEEC-Eureka Effect}$ 

Detecting understanding and information propagation within a group of students in videos of E-learning sessions

Publication at ACII2019 & Conference

-  $2018-2019 \rightarrow Inwibe$ 

Creation of a search engine based on natural language processing for Startup/Corporate's interest matching

- 2018 → FlaminCode: bash-3D-viz (POSIX shell, bash, awk, sed)
   PoC & Contest: Manipulating 3D objects in the terminal
- 2018 → Smart Touch (*Python, OpenCV*)
  Tactile Projector with vocal interface

# **SKILLS**

**Software:** Office Suite, Vim, LATEX(1k lines) & Groff (3k)

Operating System: Linux Programming (lines of code):

→Mastered Languages:

Axe Parser(40k lines), python(20k), asm z80(18k), C(5k), Ti-Basic(5k), [POSIX] shell(3k), Mathematica(2k), awk(1k)

→Learning:

VHDL(8k), ruby(7k), C++(7k), vimscript(2k), java(900), sed(500), Haskell(200), RUST(200)

#### INTEREST:

Circus (14 years): Juggling

Music (4 years, self-taught): Guitar, Bass

Rubik's Cube: Speed Cubing Magic: Card manipulation

Programming Astronomy

### ASSOCIATIVE & PROFESSIONAL EXP.

→2018-2019 → Ivry-sur-Seine (France) & Bangkok (Thailand)

**Laboratory**: ESIEA-**LDR** (machine Learning, big Data, mobile Robotics) & **KMUTT** (King Mongkut's University of Technology Thonburi)

Role: "Student Researcher" in Artificial Intelligence

Mission: Technologies for Education & Teaching in Context-Creating a facial tracker and emotional extractor to facilitate detection and analysis of the propagation of understanding in a group of students

**Publication & Conference**: ACII2019 - "Joint Analysis of verbal and nonverbal interactions in collaborative E-Learning" (M. Piot, T. Alabarbe, J. Gonzalez, C. Le Bail, L. Prevost, J. Bourdeau, F.X. Bernard, M. Baker, F. Detienne)

**Tools**: python, pytorch, TensorFlow, Keras, OpenCV, Siamese Networks, Variational Auto-Encoders

 $\rightarrow \! 2018\text{-}2019 \rightarrow \text{Paris}$ 

Freelance: Inwibe

Role: Natural Language Processing Developer (NLP) & Web Maintenance

**Missions**: Creation of a search engine based on Natural Language Processing technologies, to boost Corporate/Start-Up relationship, and maintenance of said Web Platform

Tools: python, gensim, spaCy, TensorFlow, Ruby on Rails, Django

 $\rightarrow$ **2018-2019**  $\rightarrow$  Ivry-sur-Seine (France)

Association: ESIEA-DTRE (Robotic Departement)

Role: Active Member

Mission: Developing a robot featuring autonomous movement, and restoring an oscilloscope as a digital screen

 $\rightarrow$ **2017-2018**  $\rightarrow$  Ivry-sur-Seine (France)

**Laboratory**: ESIEA-**LDR** (machine Learning, big Data, mobile Robotics)

Role: "Student Researcher" in Artificial Intelligence

**Mission**: Transfer Learning applied to emotional detection in an image

Tools: python, OpenCV, TensorFlow, Keras, VGGFace

 $\rightarrow$ **2016-2019**  $\rightarrow$  Ivry-sur-Seine (France)

Association: ESIEA-BDA (Arts Office)

Role: Active Member

**Missions**: Giving drawing, bass, and magic lessons. Giving magic shows. Active participation to the association's events and their communication

 $\rightarrow$ **2016** (1 month)  $\rightarrow$  Paris

Laboratory: ESIEA-ARNUM (Digital World and Arts)

Role: Researcher in Artificial Intelligence

**Mission**: Research on Deep Learning technologies applied to text and image understanding and generation, in arts

Tools: Python, TensorFlow, Keras, Caffe, Theano

 $\rightarrow$ **2015** (2 months)  $\rightarrow$  Bagneux

Association: PPCM (Smallest Circus in the World)

Role: Juggling Teacher

Mission: Giving juggling classes to children, as a solidarity action