CHADY DIMACHKIE

Machine Learning Engineer

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EXPERIENCE

Machine Learning Engineer
Ubisoft Entertainment

2019 – Current | Paris, France

- Work on a **fast** and **accurate** semantic **similarity engine** using a state-of-the-art **multilingual DistilBERT-based model** and **ANNG search** in **Python** and **Rust**
- **Open-sourced** my **Rust implementation** of our NLP model for **real-time inference**
- Deployed our **microservice architecture** in production using **Kubernetes** and a complete stack of tools for **benchmarking**, **testing**, **monitoring**, **logging** and **reporting**
- **Prototype** work on a **fast high-quality face swap** algorithm

Deep Learning Intern
Nvidia Corporation

2018 – 2019 | SF Bay Area, US

- Work on **DLSS (Deep Learning Super Sampling)**, one of **Nvidia Turing**'s major feature for **real-time anti-aliasing** and **upscaling** on latest **AAA video games**
- Work on other projects like **style transfer** for portraits with **autoencoders**, etc
- Participated in conferences like **GDC**, **GTC** and **SIGGRAPH**

Software Engineer Intern
ETIX Labs R&D

2016 | Luxembourg, Luxembourg

- Development of a **smart CCTV** system for data-center monitoring

Software Engineer Intern
Robert BOSCH GmbH

2015 | Saint-Ouen, France

- Development of a web-based **product trading platform** for internal use

PROJECTS

Real-Time Path Tracer, with CUDA/OpenGL in C++

- Leverages **CUDA/OpenGL** interop with support for BRDF with roughness, **volume raymarching**, **texturing**, **normal maps**, **triangle meshes** loading, cubemaps, scene description, UI, etc

ArtFlow, a Google's Tilt Brush-like, web-based

- ArtFlow is a **VR 3D software**, in which you can **draw your own world** using VR controllers

Real-Time rendering Engine, with OpenGL/GLSL in C++

- Features microfacet-based lighting models like **Cook-Torrance** and **Oren-Nayar** for **Physically Based Rendering**, Spherical Harmonics lighting, asynchronous texture streaming, shadow mapping, SSAO, adaptive LOD tessellation, etc

Blurred image restoration, with OpenCV in C++

- Implements **blur detection** with **Haar Wavelet Transform**, and **image restoration** with **Accelerated Lucy-Richardson**, **Wiener** and a custom **blind deconvolution** algorithm

EDUCATION

M.Sc. in Computer Science
EPITA

2013 - 2018 | Paris, France

B.Sc. in Computer Science
Bahçeşehir Üniversitesi

2015 | Istanbul, Turkey

SKILLS

Industry Knowledge

Machine Learning | Neural Networks | Computer Vision | NLP | Computer Graphics | Rendering | Deployment

Operating Systems

Windows | Linux

Programming Languages

Python | Rust | C++ | C | GLSL | CUDA | JavaScript

APIs

Numpy | PyTorch | Keras | OpenGL

Tools

Kubernetes | Docker | Visual Studio | Vim | Jupyter Notebook

INTERESTS

Music | Cinema | Sports | Video games | Travel

LANGUAGES

French ●●●●●

English ●●●●●
TOEIC: 985/990

Arabic ●●●●○

Spanish ●●●○○