NIKOLAOS KOKKINIS NTRENIS

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WORK EXPERIENCE

University of Applied Sciences and Arts of Western Switzerland July 2020 - Now
Research Software Engineer *Geneva, Switzerland*

· Modeling pathological gait resulting from motor impairments: compare and combine neuromechanical simulation and machine learning approaches.
Use: Pytorch, Tensorflow, Weights and biases, Slurm, Docker, Opensim, Python

CERN August 2017 - December 2019
Software Engineer *Geneva, Switzerland*

· Data analysis of the Components of the CLIC Accelerator and Detector to assess its societal impact and visualization of it using graphical database.
Use: Chart.js, JS, Neo4j, Datatable(Python), Python, Numpy

CERN September 2015 - November 2016
Technical Student *Geneva, Switzerland*

· Built software that analyzes and clusters particles using the timepix particle detector. The software was used to help students understand particle physics while allowing educational institutions to provide it as a low-budget (100 euros) alternative to Pixelman (6,000 euros).
Use: JQuery, Javascript, HTML5, CSS, Python, Numpy, JavaScript ROOT

National Centre of Scientific Research "Demokritos" July 2014
Intern *Athens, Greece*

· Examine the existence of correlation between movies extracting: low level audio signals, visual features, textual features to build a movie recommendation system.
Use: JQuery, Javascript, HTML5, CSS, PHP, Python, Scikit-Learn, Numpy

EDUCATION

University of Geneva, Switzerland September 2018-Now
Master in Computer Science (GPA: 4.9/6)
Thesis: Modeling pathological gait resulting from motor impairments: Compare and combine neuromechanical simulation with Reinforcement learning approaches.

Harokopio University of Athens, Greece 2010-2018
BSc. in Informatics and Telematics (GPA: 7.7/10)
Thesis: Create a quad-copter with Arduino Yun and manipulate his movement through Wifi from a laptop or mobile phone. The quad-copter has 5 sensors(temperature, humidity, noise detector,flame detector, gps) and collect those data through his flight time.

Publications

- "The Compact Linear e+e Collider (CLIC) - 2018 Summary Report", CERN 2018

- "Discovering Similarities for Content-Based Recommendation and Browsing in Multimedia Collections", IEEE 2015

Computing Certifications

- CERN School of Computing 2016 Diploma, Vrije Universiteit Brussel   28 Aug.-10 Sept. 2016
- CERN White Hat courses   *September 2015 - December 2015*

PROJECTS/ACTIVITIES

Visualization of lexico-semantic networks   16 March 2019- October 2019

Assisted the Neuroscience department of Geneva University with analyzing and visualizing lexico-semantic data.

Use: Django, Pandas, Numpy, D3.js

"Baxter" Mimic   18 July 2018

Made the Rethink Robotics Baxter robot mimic arm movements. This was developed for the Cineglobe 2018 film festival at CERN.

Use: Processing, Bash, ROS

"RefuGR"   10 December 2016

Our team won first prize at Hack the Camp (100 participants hackathon). We built a prototype of a mobile app that would help immigrants have access to information shared by Athens-based NGOs. The app also offered video-based language courses of Greek-Farsi. .

Use: IonicFramework, AngularJs, Bootstrap, Firebase, Javascript, SQL

"DepictIt" Web application   16-18 September 2016

Developed a Taboo-like game during HackZurich 2016.

Use: Python Django, Messenger Bot API and Google Vision API

"Food & Safety Monitor" Web application   4-7 July 2014

Our team won second prize at the second SemaGrow Hackathon (30 participants hackathon). We built a web app that helps farmers have access to information about seeds (e.g. watering needs, cost, time to grow, etc)

Use: Javascript, Java, JSP, SQL

TECHNICAL SKILLS

Programming/Scripting Languages:	Python, C/C++, R, PHP, MATLAB, Bash, Swift
Frameworks/Tools:	Pandas, Pytorch, Tensorflow, Scikit-Learn, Docker, Git
Web front-end technologies:	HTML5, CSS3, Javascript, AngularJS
Databases:	PostgreSQL, MySQL, Neo4j
Operating Systems:	GNU/Linux, FreeBSD, Microsoft Windows