Salah GHAMIZI
PhD candidate @ Snt-University of Luxembourg

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Education

SnT - University of Luxembourg   2019-...
Ph.D. Candidate: Robust & Secure Deep Learning

Selected papers:
- Ghamizi, Salah & Cordy, Maxime & Papadakis, Mike & Le Traon, Yves. (2021). **Evasion Attack STeganography: Turning Vulnerability Of Machine Learning To Adversarial Attacks Into A Real-world Application; ICCV21; to appear.**
- Ghamizi, Salah & Renaud Rwemalika & al. (2020). **Data-driven Simulation and Optimization for Covid-19 Exit Strategies.** *KDD 2020; Best Paper Award;* **DOI 10.1145/3394486.3412863.**
- Ghamizi, Salah & Cordy, Maxime & Papadakis, Mike & Le Traon, Yves. (2020). **Search-based adversarial testing and improvement of constrained credit scoring systems. ESEC/FSE 2020;**
- **DOI 10.1145/3368089.3409739.**
- Ghamizi, Salah & Cordy, Maxime & Papadakis, Mike & Le Traon, Yves. (2020). **FeatureNET: Diversity-Driven Generation of Deep Learning Models. ICSE Companion 2020; DOI 10.1145/3377812.3382153.**
- Ghamizi, Salah & Cordy, Maxime & Papadakis, Mike & Le Traon, Yves. (2019). **Automated search for configurations of convolutional neural network architectures. SPLC 2019; DOI 10.1145/3336294.3336306.**

GeorgiaTech / IAE Metz (France);   2016-2017
I-Corps/ Msc Entrepreneurship & Management of Innovative Businesses
Relevant Coursework: *Agile & Lean Projects, Team Management, Funding Proposal writing.*

MinesNancy, School of Computer Science   2012-2016
Bachelor then Master in Artificial Intelligence and Robotics.

Relevant Coursework: Algorithms, Data Structure, Artificial Intelligence, Image Analysis, Computer Architecture, Distributed Systems, Databases, Mobile & Web development, Probability & Statistics, Operations Research.
Capstone projects:
- ReTypograph; Using OpenCV-JAVA, text extraction & automated generation of text fonts from raw pictures of historical records (2014). Paper: Lamiroy, Bart & Bouville, Thomas & Blégean, Julien & Cao, Hongliu & Ghamizi, Salah. (2015). Re-Typograph Phase I: a Proof-of-Concept for Typeface Parameter Extraction from Historical Documents. Proceedings of SPIE - The International Society for Optical Engineering. 9402. 10.1117/12.2075813.
- iCrisis; tracking & prediction of crowd behavior in emergencies using video analysis with Optical Flows, wearable motion sensors, and RNN algorithms (2016).

Work Experience

LumApps SAS,   March 2018
R&D Engineer   Dec 2018

In charge of the improvements and deployment process of the platform of some of the company's major clients (Decathlon, Veolia,…) and implemented third party API integration Set up the open-source SDK of the company, and supervised the continuous delivery & testing architecture of the SDK.

WAZA Education,
Co-founder and CTO

Sept 2016
March 2018

Fullstack lead engineer of a team of 3 people:
- Built the MVP & Production platform using Angular & LAMP stack. Migrated the application to a GCloud scalable architecture with continuous deployment with Bitbucket pipelines. Sped up common user interaction up to 800% by refactoring runtime complexities & implementing caching and one-way bindings.
- Developed the scrapping and web-parsing platform based on DomJS/NodeJs frameworks.
- Designed and implemented our Natural Language Processing pipeline and models using NLTK (Python) and StanfordNLP (Java) for POS Tagging, NER, and Bayesian classifiers.
- Managed the various projects with SCRUM and test-driven development processes.

PEEL - University Of Lorraine,
Software Engineer on project Edstore

March 2016
Sept 2016

- Built an AI algorithm and a platform to match Master thesis subjects proposed by business partners with courses taught in the university.
- Designed a recommender algorithm (content-based filtering). Using tf-idf and Kmeans for clusters, MLP, and KNN algorithms for a quasi-real-time recommendation.

Inria Grand Est,
Research Intern

June 2014
Sept 2014

Worked on the Cortex Project to build a new model for « Central Pattern Generator » based learning processes: Compared and improved Rowat-Selverson/Matsuoka models using a neural network based on dynamic Hebbian Learning (bio-inspired model for unsupervised learning).

Recent Awards & Volunteering

COVID-19 Task Force (2020) - 120k€ Grant from *Luxembourg National Research Fund and AUF for 1-year research on Covid19 simulation and forecasting.*

i-LAB, Pépite (2017) - Awarded 6k€ from the *French Ministry of Research & Innovation for my NLP work on WAZA (400 candidates).*

EcoRevolutions (2016) - Awarded 12k€ from the "GrandEst" State for Edstore/WAZA project.

Imagine Cup (2016) – Finalist of the competition held by Microsoft France for project Edstore.

Organizations: Junior Chamber International (project leader), TEDx MinesNancy (Founder).

Languages

French | Arabic
Mother tongues

English
Fluent, C1 level: Cambridge Advanced Examination

Japanese
Basic notions: N4 level in Japanese Language Proficiency Test