AICHA AID PHD

PYTHON DEVELOPER

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SUMMARY

Associate Professor and Software Engineer with 4+ years of experience and ability in using Python technologies for translating business needs and research problems into technical requirements and innovative software solutions. Extensive expertise in designing, developing, and testing systems of different sizes and complexity.

WORK EXPERIENCE

Associate Professor   Dec 2017 - Present
Computer science department & LIMPAF research laboratory, Bouira University, Bouira

- Design, teach, and deliver lectures, seminars, and lab sessions. Courses range from Data Mining, NLP, Human-Computer Interactions, and Service-Oriented Architectures.
- Conduct research in area of disaster management, machine learning, deep learning, pervasive computing, and NLP.
- Design and develop interactive web applications using Python. Research and course materials use Python technologies too.
- Supervise, collaborate, and mentor graduate students. Up to 26 supervised students working on development and research subjects related to applied ML and DL, text summarization, and information management techniques and algorithms.
- Research, design, implement, and build a context-aware DPWS-based framework to enhance situation-awareness and information filtering in crisis and disaster situations.
- Participate actively as a member of the department community: on administrative and scientific committees, and student advising.

Assistant Professor   Dec 2016 - Dec 2017
Computer science department, Bouira University, Bouira

Assistant, temporary teacher   Sept 2014 - Dec 2016
Computer science department, Bouira University, Bouira

- Taught and directed lab sessions about Algorithms, Data Structures, and Office Automation for undergraduate students.
- Verified and corrected problem sets, algorithms, and exercises in class and answered students' questions.
- Prepared and graded assignments and exams. Evaluated students C programming projects. Provided helpful performance feedback.

Other scientific roles

Head of the Computer Systems Engineering graduate program   Sept
CS department, Bouira University, Bouira   *2020 - Present*

- Animate the work and the meetings of the training team of the computer science department.
- Clarify, facilitate, and ensure the proper functioning, the effectiveness, and the achievement of training curricula objectives through sustained dialogue with students, teachers, and administrators.
- Recommend and review proposals for all changes to existing graduate curricula and courses, including course additions and deletions.
- Discuss and propose measures to improve existing courses contents. 24 courses are available for up to 50 students each year.

EDUCATION

Mouloud Mammeri University of Tizi-Ouzou
PhD in Information Systems and Artificial Intelligence   2016
MSc in Computer Systems   2011
BSc in Computer Science   2009

SKILLS

Programming Languages: Python, Java, SQL, SPARQL, C, RDF, RDFS, OWL, HTML/CSS, JavaScript.
Libraries & Frameworks: Django, Django RF, Flask, FastAPI, Scikit-Learn, Numpy, Keras, Celery, NLTK, spaCy, Tkinter, BeautifulSoup.
Tools & Platforms: MySQL, PostgreSQL, ORM, MongoDB, Redis, Docker, Git, RabbitMQ, Heroku, SOAP, REST.
Computing: Machine Learning, Deep Learning, Asynchronous, Microservices, Natural Language Processing, Web Scraping, Web Services, Arduino, Context-awareness.

PYTHON PROJECTS

NER Crisis Extractor🔗: Django web application that uses spaCy's Named Entity Recognition and CrisisLex lexicon to identify and extract 4W situational events (What Where When Who) from crisis textual reports. It also extracts them from tweets based on a given hashtag, thanks to Twitter API. The platform allows users to create an account, save, and download the extracted events as a CSV file.

Flshcrd Maker🔗: Django web application to easily create and share personal flash cards and quiz yourself for memorization to improve studying and learning. You can also export your flash cards in a CSV file. Cards about Algorithms, data structures, complexity, or any other domain/subject of your interest.

Credit Card Fraud🔗: Django REST API that uses Machine Learning trained models to detect and recognize in real time fraudulent credit card transactions so that customers can be protected from frauds. ML models were trained using logistic regression, random forest, and SVM algorithms from the Scikit Learn library.

Fake News Detector🔗: Flask web application that uses Machine Learning trained models and NLTK library to predict fake news from a given text. Models were trained using passive aggressive classifier.

MovieRec🔗: Flask web application to recommend a list of movies to users using hybrid machine learning techniques. The platform also returns the most trending movies from themoviedb website & API.

SLMS🔗: Smart Library Management System – a desktop application using RFID system, Arduino, Python Tkinter, PySerial library, and MySQL. It also uses sensors like DHT11 sensor to collect, plot on GUI, and save to DB/CSV file all sensed data (temperature and humidity).

VOLUNTEERING

Startup Weekend Women Maghreb   May 2014
Organizer. Algiers, Algeria
TEDx Tizi-Ouzou   May 2014
Volunteer.   Tizi-Ouzou, Algeria
22th Linux and Free Software School   Dec 2014
Organizer and Participant.   Bouira, Algeria
Youth Success   Mars 2015
Volunteer.   Tizi-Ouzou, Algeria
DZ Women in Technology (DZWIT)   2014-2015
Member.   Algiers, Algeria

LANGUAGES

- Kabyle: Native
- Arabic: Native
- French: Fluent
- English: Fluent