Georgios Orfanidis

Curriculum Vitae

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My Webpage
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Education

2017–present **Bachelor of Science, Computer Science with a minor in Mathematics**, *Winthrop University*, Rock Hill, SC, USA.

Cumulative GPA: 3.922/4.0

Computer Science GPA: 3.942/4.0

Mathematics GPA: 4.0/4.0

Research Experience

Cornell University

August 2020 ***Fact Checking for Scientific Papers***.

Utilizing Machine Learning (ML) and Natural Language Processing (NLP) techniques we develop a fact-checking tool that will assist authors and reviewers of scientific papers to identify inconsistencies and potential errors. To train our model we are creating multiple datasets depending on what type of errors we aim to capture using scientific papers from multiple and diverse disciplines. Finally, we are using the task specific dataset to fine-tune the state of the art for NLP tasks model (BERT).

Advisor **Dr.Immanuel Trummer**, *Assistant Professor, Department of Computer Science, Cornell University.*

North Carolina State University

July 2020 ***Effective Identification and Engagement of Transportation Stakeholders Using Geospatial Analytics and Online Advertising***.

Traditional outreach for public hearings regarding a transportation project, while effective, might fall short on involving all affected stakeholder groups. This may cause a one-sided representation in public hearings that may not reveal the actual value (or lack thereof) of the proposed transportation project. To ensure that the project team is able to collect meaningful and constructive feedback from both viewpoints, local, and commuting stakeholders representing various communities or demographic groups need to be engaged. For this, we introduced a new approach for stakeholder identification and public engagement using geospatial analytics and online advertising. In terms of spatial/location targeting, we have developed a tool by combining existing options from popular advertising platforms in a novel way. This helps with the precise identification of local and commuting stakeholders. In order to digitally reach stakeholders with a high possibility of active participation, we also employ demographic hotspot analysis. Finally, the outputs from the above processes are used as input for an automation tool that creates the targeted advertising campaigns.

Presentation **North Carolina Department of Transportation (NCDOT) Committee**.

My advisor and I updated the NCDOT Research and Development Committee on the progress of our research.

North Carolina Department of Transportation (NCDOT) Research & Innovation Summit.

The objective of the event hosted by the University of North Carolina Highway Safety Research Center (HSRC) was to introduce innovative transportation research from the public, private and academic sectors.

North Carolina State University (NCSU) Internal Symposium.
Students from all the Departments of NCSU presented their research in a virtual symposium that was held by the institution.

National Computer and Information Science and Engineering (CISE) Symposium.
Students from major Computer Science University programs presented their research.

Advisor **Dr. Okan Pala**, *Research Associate, Department of Computer Science & Center of Geospatial Analytics, NCSU.*

Academic Enrichment

May 2019 **Certification, Effective Problem-Solving and Decision-Making**, *University of Irvine*.

Spring 2020 **Queen City Hackathon 2020**.
My student team and I developed and trained a Machine Learning model to accurately predict the economic growth or decline of a Charlotte area over the last decade.

August 2020 **Member of the Cornell, Maryland, Max Planck Pre-doctoral School 2020 (CMMRS 2020)**.
The world's most qualified undergraduate and graduate students were selected to exclusively participate in the program. Students had the opportunity to get exposed to cutting-edge research in computer science and also individually interact with leading scientists. (https://cmmrs.mpi-sws.org/)

Academic Distinctions

Fall 2017, Fall 2019, Spring 2020 **President's List**.
Students with 4.00 GPA.

Spring 2018, Fall 2018, Spring 2019 **Dean's List**.

2017-2018, 2018-2019 **Big South (NCAA Division 1 Athletic Conference) Presidential Honor Award**.
Students-athletes with GPA greater than 3.899.

Fall 2020 **President of UPSILON PI EPSILON**.
International honor society for Computing and Information disciplines. Only students that have GPA greater than 3.8 in their Junior year were invited.

Member of Honor Societies & Organizations

Fall 2017 **Member of Alpha Lambda Delta**.
National honor society for first-year students.

Spring 2018 **Member of National Society of Collegiate Scholars (NSCS)**.
NSCS is an honors organization that recognizes and elevates high-achieving students.

Fall 2019 **Member of Gamma Beta Phi**.
National collegiate honor and service organization that focuses on community and educational leadership.

Fall 2019 **Member of Omicron Delta Kappa**.
The national leadership honor society. Recognize individuals who consistently achieve high standards of excellence.

Fall 2019 **Member of Association for Computing Machinery (ACM)**.

Fall 2019 **Member of Institute of Electrical and Electronics Engineers (IEEE)**.

Projects

Fall 2019 **Simplified Compiler**.
I developed a compiler using LEX and YACC for our own defined programming language (very similar to PASCAL). The compiler identifies syntactically correct instructions and outputs assembly code; otherwise, indicates an error and returns the line that the error was found.

Fall 2019 **Student Advising System**.
I developed a web based advising system where a professor is able to add/remove appointments on their calendar and view booked ones. In addition, students have the ability to reserve appointment slots and recover the appointment information.

Spring 2019 **Word Search**.
I developed a word-search game that prompts the user for two input files, a 2D matrix with random letters and a file with words to search for. The algorithm, implemented with trees, is searching for each word and returns its location in the matrix.

Spring 2019 **Sorting Strings**.
I developed a program that combines and sorts input files. The program reads in lines from one or more input files, sorts them using a non-recursive version of mergesort, and then prints the results.

Spring 2020 **Coronavirus Prediction**.
My student team and I developed an SIR model to predict the number of people who will contract the virus, the number of people who will recover and the number of people who will succumb to coronavirus.

Spring 2020 **Simple Shell Program**.
I developed a simple Linux Shell program that enables the user to send simple commands to the Operating System. Commands that are available: myprocess - show my current processes, allprocesses - show all processes, chgd <destination> - change the current directory to <destination>, clr - clear the screen, dir <directory> - show current <direcotry>, environ - list all the environment strings, quit - quit the shell, help - display the user manual.

Spring 2020 **Card Trading Web Application**.
I developed a web based card trading application. If users do not have an account they can create one to get access to the platform. There, they can select cards that are available for purchase and add them to their own collection by paying the corresponding price. Users can trade cards among themselves

Fall 2020 **Online Phone Book Directory**.
Spring 2021 My student team and I are developing an online Phone Directory. Our task is to create a contemporary Phone Directory that maintains all of the characteristics of a traditional Phone Book. The system will allow users to search for people and see what available information they have on communicating with them. This product also gives access to any companies for various resources within the area.

Computer skills

Programming Languages	Python, JAVA, C, C++, R
Machine Learning	BERT, NLTK, NumPy, Pandas, Scikit-learn, GLUON
Web Technologies	HTML 5, PHP, Javascript, CSS
Database	SQL, MySQL, MongoDB
Other	LEX, YACC, LaTex
OS	Unix, Linux, Windows, iOS

Soccer Distinctions

My engagement in youth competitive team sports and later university sports helped me develop strong communication, time management and leadership skills as well as the ability to strategize, identify the details that make the difference, set goals and execute while at the same time listen to constructive criticism and adjust accordingly.

2013-2015 **Member of the youth Greek National Soccer Team**.

2015-2017 **Member of Olympiacos F.C.(Junior Team)**.
Leading Greek professional soccer team with multiple appearances in UEFA Champions League.

Fall 2017 **Selected in the fifty most talented Under 20 soccer players in Europe by Metro.co.uk**.
Metro.co.uk is one of the most popular athletic newspaper and website, England.

2017-present **Received full athletic scholarship to play NCAA Division 1 Soccer at Winthrop University**.

Volunteer Work

December 2018, 2019 **Toys for Happiness**.
I helped load and unload toys to 500 families during the Holidays.

Summer 2019 **C++ Tutoring**.
Tutored C++ to one student in Thessaloniki, Greece.

Languages

Greek (Native).

English (Fluent - Working language).