Vasilis Sarris

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Summary

PhD student in Computer Science at the University of Pittsburgh, focused on database management systems (DBMS), specifically optimizing join algorithms for cloud environments. This specialization provides a strong understanding of the entire data processing pipeline, from remote data ingestion to query optimization / execution in disaggregate environments.

Education

University of Pittsburgh — Pittsburgh, PA, USA
PhD, Computer Science — *Aug 2023 — Present*
- Advisor: Panos Chrysanthis

University of Pittsburgh — Pittsburgh, PA, USA
MSc, Computer Science — *Aug 2021 — Apr 2023*

University of Pittsburgh — Pittsburgh, PA, USA
BSc, Computer Science — *Jan 2019 — Apr 2022*

Experience

Researcher — Dec 2020 — Present
Advanced Data Management Technologies Lab — *Pittsburgh, PA, USA*
- Extended work in Indoor-Outdoor Navigation by creating and implementing multiple novel path finding algorithms.
- Wrote and published multiple first-author papers on these novel algorithms.

Researcher — Jan 2021 — Apr 2021
Kovashka Lab — *Pittsburgh, PA, USA*
- Explored the effects of pre-processing the input of object recognition models (ResNet, AlexNet, etc.) in such a way that was more akin to the visual cortex.
- Preformed domain generalization benchmarks on these models using the standard and modified inputs.

Research Assistant — Apr 2019 — Dec 2020
Learning Imaging & Family Experience Lab — *Pittsburgh, PA, USA*
- Developed a robust, user-friendly, graph-based fMRI analysis pipeline for the lab's PhD students.
- Developed multiple web-based tasks for large-scale, NIH-funded psychology studies.

Visiting English Teacher — Jul 2019 — Jul 2020
東澳國民小 (Dong'ao Elementary) — *Nan'ao, Yilan, Taiwan*
- Taught English to 100+ elementary school children, grades 1st-5th.

Selected Publications

[1] V. E. Sarris, C. P. Sweeney, S. M. Linton, B. T. Nixon, P. K. Chrysanthis, and C. Costa, "GIO.G: A Generator for Indoor-Outdoor Graphs to Simulate and Analyze Urban Environments," in *25th IEEE International Conference on Mobile Data Management, MDM 2024, Brussels, Belgium, June 24-27, 2024*, IEEE, 2024, pp. 243–246. doi: 10.1109/MDM61037.2024.00050.

[2] V. E. Sarris, P. K. Chrysanthis, and C. Costa, "Recommending the Least Congested Indoor-Outdoor Paths without Ignoring Time," in *Proceedings of the 18th International Symposium on Spatial and Temporal Data, SSTD 2023, Calgary, AB, Canada, August 23-25, 2023*, ACM, 2023, pp. 121–130. doi: 10.1145/3609956.3609969.

Skills / Selected Coursework

- **Programming Languages**: C, C++, Java, Python, Scala
- **Development Tools**: CMake, GDB/LLDB, Git, Google Test, Intel TBB, Make, perf
- **Courses (Grad):** Design & Analysis of Algorithms, Adv. Database Systems, Seminars on AI, CV, & IoT
- **Courses (Undegrad):** Algorithms & Data Structures, Database Management Systems, Graph Theory