Amadou L. Ngom

PhD Candidate at MIT CSAIL

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EDUCATION

Massachusetts Institute of Technology
PhD Candidate in EECS – Advised by Tim Kraska
September 2020 – Present
GPA: 5.0 / 5.0

Carnegie Mellon University
Bachelor of Science in Computer Science
Master's in Computer Science – Advised by Andy Pavlo
SCS Flag Bearer
Phi Beta Kappa
Class of 2019
QPA: 4.0 / 4.0

Prytanée Militaire de Saint-Louis, Senegal
Baccalaureate
Graduated July 2014
Best Student in Senegal Award

PRIMARY SKILLS
Databases
Distributed Systems
LLM Programming

PROGRAMMING LANGUAGES
Proficiency: Rust, C/C++, Python, SQL.
Familiarity: Go, JS, others.

NATURAL LANGUAGES
English
French
Wolof
Beginner Chinese

PUBLICATIONS

Mallet: SQL Dialect Translation with LLM Rule Generation

Amadou Latyr Ngom, Tim Kraska

SIGMOD 2024 – AIDM Workshop.

Blueprinting the Cloud: Unifying and Automatically Optimizing Cloud Data Infrastructures with BRAD

Geoffrey X. Yu, Ziniu Wu, Ferdi Kossmann, Tianyu Li, Markos Markakis, Amadou Ngom, Samuel Madden, and Tim Kraska.

VLDB 2024

Check Out the Big Brain on BRAD: Simplifying Cloud Data Processing with Learned Automated Data Meshes

Tim Kraska*, Tianyu Li*, Samuel Madden*, Markos Markakis*, Amadou Ngom*, Ziniu Wu*, Geoffrey X. Yu*

VLDB 2023 – Vision Paper

Filter Representation in Vectorized Query Execution

Amadou Latyr Ngom, Prashanth Menon, Matthew Butrovich, Lin Ma, Wan Shen Lim, Todd C. Mowry, Andrew Pavlo

SIGMOD 2021 – DAMON Workshop

Mainlining Databases: Supporting Fast Transactional Workloads on Universal Columnar Data File Formats

Tianyu Li, Matthew Butrovich, <u>Amadou Ngom</u>, Wan Shen Lim, Wes McKinney, Andrew Pavlo

VLDB 2021

TEACHING EXPERIENCE

Software Systems for Data Science – MIT

Spring 2022 TA

Database Systems – Carnegie Mellon University

Fall 2019 TA

Distributed Systems – Carnegie Mellon University

Spring 2019 Head TA, Fall 2018 TA, Spring 2018 TA

INDUSTRY EXPERIENCE

Pure Storage, Mountain View

Summer 2018

I worked on optimizing data transfer between Pure Boxes and Amazon S3. I learned a lot about writing performant code.

Zillow, Seattle

Summer 2017

I worked both as a front-end developer and as a back-end developer. I not only gained technical skills, but also crucial industry experience.

AWARDS AND DISTINCTIONS

Flag Bearer of CMU's School of Computer Science
Awarded to the student with perfect GPA and notable undergraduate achievements.

Phi Beta Kappa Honors Society Membership
Awarded based on excellence and integrity in the studies of liberal arts and sciences.

Best Student in Senegal
Awarded to the top-performing student in nationwide academic competitions.