

Michael Paglia

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EDUCATION

University at Albany

Master of Science in Computer Science

Albany, NY

Anticipated May 2025

University at Albany

Bachelor of Science in Computer Science

Albany, NY

Anticipated May 2024

- GPA: 3.82/4.0
- Member of Phi Beta Kappa

EXPERIENCE

Student Researcher

University at Albany

Sep. 2024 – Present

Albany, NY

- Implements algorithms for temporal graph signal and multi-dictionary tensor decompositions
- Supports rank models and coding optimizers for ADMM, gradient-based, OMP-greedy, and Kronecker
- Integrates custom graph and time-series dictionary generation

STEM Tutor

PAPER Tutors

Jun. 2022 – Present

Remote

- Coaches students on mathematics and computer science using question-based teaching method
- Offers bilingual (English and Spanish) support while working with multiple students concurrently

Founder and CEO

M.P. Mercantile, LLC

Nov. 2020 – Present

Troy, NY

- Founded a start-up e-commerce business hosted on major online marketplaces
- Achieves over six figures annually in gross sales revenue

Intern

Regeneron Pharmaceuticals, Inc.

May 2023 – Aug. 2023

Rensselaer, NY

- Collaborated with IT department to implement a CRUD application interface and REST API
- Provided smart contract-based access using Python, Flask, JavaScript, and Dremio Data Lake
- Automated internally written regulatory report data to drive departmental improvement

PROJECTS

PySpady | *Python, NumPy, TensorLy, Git* | <https://bit.ly/pyspady>

Sep. 2024 – Present

- Python library leveraging state-of-the-art and sparse encoding algorithms to analyze spatial-temporal data
- Features data compression, missing value imputation, future value prediction, and autocompletion
- Machine learning determines the best combination of dictionaries, models, and optimizers for given dataset

Operating System Simulator | *Java, Git* | <https://bit.ly/os-simulator>

Sep. 2023 – Nov. 2023

- Designed for training typical operating system capabilities without requiring a VM
- Features priority scheduling, processes, messages, paging, and virtual memory using the local JVM

Custom Language Interpreter | *Java, Git* | <https://bit.ly/custom-interpret>

Aug. 2022 – Nov. 2022

- Defines a functional programming language with pseudocode-like syntax to introduce people to coding
- Capable of lexical analysis, parsing, and semantic analysis into an interpreted output

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, MIPS

Frameworks: Node.js, Flask, JUnit, WordPress

Developer Tools: Git, Docker, Dremio, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

Libraries: pandas, NumPy, TensorLy, Matplotlib