

# Gerald McCollam

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## EDUCATION

### JOHNS HOPKINS UNIVERSITY

#### MS IN BIOINFORMATICS

Exp: Dec 2019 | Baltimore, MD

Cum. GPA: 3.85 / 4.0

### NEW YORK UNIVERSITY

#### COGNITIVE/COMPUTER SCIENCE

May 1997 | New York, NY

Gallatin School

Cum Laude

Cum. GPA: 3.65 / 4.0

## LINKS

LinkedIn:// geraldmc

Blog:// geraldmc.github.io

## COURSEWORK

### GRADUATE

Algorithms for Bioinformatics

Biostatistics

Epigenetics & Gene Expression

Machine Learning

Metagenomics

### UNDERGRADUATE

Operating Systems

Information Retrieval

Functional Programming

Unix Tools and Scripting

## SKILLS

### PROGRAMMING

Over 5000 lines:

Python • Shell • R • SQL

Over 1000 lines:

Ruby • Go • C++

Familiar:

Scala • iOS • CSS • JS

### STATISTICS

R and Bioconductor

SciPy • SAS • SPSS

### DATA SCIENCE/ML

Pandas • Scikit-Learn

Flask • Keras API

### CERTIFICATION

- CCDH, Certified Hadoop Developer
- AWS Solutions Architect (Associate)

## EXPERIENCE

### OPENMINE | CLOUD SOLUTIONS ARCHITECT (GENOMICS)

Jan 2011 - Present | New Orleans, LA

- Scientific data engineering and analysis at scale.
- Automated deployment and monitoring of web/cloud services.
- Ontology-driven database schema development.
- Bioinformatic pipeline and protocols development.
- High Throughput Sequence analysis (DNA Seq, mRNA Seq, ChIP Seq)
- API development.

### BLADELOGIC/BMC | SOLUTIONS ARCHITECT

Jul 2005 - Feb 2009 | New York, NY

- Principal architect for Pfizer, Novartis, Merrill Lynch, and Vanguard.

### EDS/HEWLETT PACKARD ENTERPRISE | SR. CONSULTING ENGINEER

Feb 2003 - Jun 2006 | New York, NY

- Consulting Engineer to Time-Warner, Reuters, and MSNBC.

### LOUDCLOUD | CONSULTING ENGINEER & TEAM LEADER

Jan 2001 - Jan 2003 | New York, NY & Sunnyvale, CA

- Managed a distributed team of network, dba, site-reliability, and sysadmin support engineers for 24/7 operations.

## RESEARCH

### USDA SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION | GRANT WRITER AND RESEARCHER

Mar 2016 - Jan 2019 | Houma, LA

- Conceived and managed a 2-year **USDA Producer Grant** on crop yield using hyper-spectral imagery captured via aerial drone.
- Predicted yield via machine learning.

### ATALLAH LAB | GENOMICS RESEARCHER

Sep 2017 - Present | New Orleans, LA

- Genomics research initiative to explore LINE-1 retrotransposon behavior.

### NYU CENTER FOR NEURAL SCIENCE | HHMI RESEARCH ASSOCIATE

Sep 1993 - Dec 1997 | New York, NY

- Led graduate training of students in a range of neurophysiological techniques.

## AWARDS

2016-18 **Producer Grant, FS14-282**

2014 Jason Stamps Scholarship Award

1997 Founder's Day Award

USDA Agricultural Research  
University of New Orleans  
New York University

## PUBLICATIONS

- [1] J. LeBien, G. McCollam, and J. Atallah. An in silico model of retrotransposon mediated neoplastic evolution. *Nucleic Acids Research*, in press.
- [2] G. McCollam and R. Johnson. Correlating nitrogen application rates and sucrose yield in sugarcane. *Sensors*, submitted.