# Andrew Fiorillo

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#### **EDUCATION**

#### **NEW COLLEGE OF FLORIDA**

BA IN PHYSICS, WITH HONORS May 2015 | Sarasota, FL

#### LINKS

LinkedIn:// Andrew-Fiorillo Bitbucket:// afiorillo1 Github:// andrewmfiorillo

#### SELECTED COURSES

#### **PHYSICS**

Statistical Thermodynamics Classical/Quantum Mechanics Statistical Mechanics Electrodynamics Solid State Physics General Relativity Differential Geometry Acoustics Nanomaterials Research

#### **COMPUTING & COMPOSITION**

Analog Electronics
Python Programming
Audio Signal Processing
Scientific Composition with LETEX
Scientific Computing: Mie Scattering
Scientific Computing: SVD Analysis

# RELEVANT SKILLS

#### **PROGRAMMING**

Over 10,000 lines:

Python • MATLAB • MTFX

Over 1,000 lines:

C++ • Ruby • HTML • QBASIC • R • SAS

Over 100 lines:

C# • Django • Fortran • Go • Haskell Java • JavaScript • jQuery • Julia • Perl

#### **SOFTWARE**

MongoDB • Git • MATLAB • Fog Visual Studio • GRAMS • AutoCAD SketchUp • LabView • Microsoft Office

#### **SYSTEMS DESIGN**

FDA-compliant validation • Documentoriented and object-relational databases System optimization and testing • *Very* high resolution image analysis

### **EXPERIENCE**

#### **INSPIRATA** | SOFTWARE ENGINEER

May 2015 - Present | Tampa, FL

- Designed and implemented an Histology image database used for ingestion and divisional allocation (research/clinical).
- Constructed a GUI tool used for database administration, managed meta- and patient-data entry, and importing new images.
- Developed extensive and publishable documentation, designed test automation protocols, and optimized bottlenecks in an existing codebase.
- Managed a team of Histology Image Analysts, including developing the analysis tool and constructing a framework to process results.

# **NEW COLLEGE OF FLORIDA** | LEAD TECHNOLOGY-STUDENT LIAISON Sep 2012 – May 2015 | Sarasota, FL

- Provided desktop application support to faculty, staff, and students on the New College campus.
- Worked with IT Help Desk team to ensure consistent lab installations and acquisition of new equipment.
- Worked with IT Networking & Telecommunications team to improve campus connectivity and scalability.
- Served on Technology Advisory Committee to compose a Renewal & Replacement Plan for review by the president of New College.
- Authored documentation for the Office of IT to assist with troubleshooting and common end user issues.
- Authored reports detailing system status for the computer labs open to students on the New College campus.

#### **ID TECH CAMPS** | Assistant Director

June 2014 - Aug 2014 | Emory University, Atlanta, GA

- Oversaw the curriculum and activities of a sleepaway technology camp for 7-17 year olds with courses in programming and game design.
- Managed staff of 18 instructors and provided technical and academic support for their individual curricula.
- Provided point-of-contact customer service to parents of over 100 campers.
- Provided on-site technical support and network management for over 130 workstations.

## RESEARCH

# NCF PHYSICAL CHEMISTRY LAB | UNDERGRADUATE RESEARCHER

Feb 2013 - May 2014 | Sarasota, FL

- Worked with Prof Steven Shipman to translate a old Fortran code into highly optimized Python.
- Optimized a non-Fourier time-to-frequency-domain algorithm using SVD on sparse matrices.
- Implemented a distributed computing framework to futher decrease computation time.
- Reproduced an algorithm which identifies dominant sinusoids, retaining important phase information.

STELLAR REFERENCES AVAILABLE UPON REQUEST.