Andrew Fiorillo

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EDUCATION

NEW COLLEGE OF FLORIDA
BA in Physics, with Honors
May 2015 | Sarasota, FL

LINKS

LinkedIn:// **Andrew-Fiorillo**
Github:// **andrewmfiorillo**
Website:// **andrewmfiorillo.github.io**

SELECT COURSEWORK

PHYSICS

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

COMPUTING & COMPOSITION

Analog Electronics
Audio Signal Processing
Scientific Computing: SVD Analysis

MATHEMATICS

Linear Algebra
Differential Equations
Probability & Statistics
Analytical Geometry
Vector Calculus

RELEVANT SKILLS

LANGUAGES

Python • MATLAB • Java • Go • C++
JavaScript (Node.js) • R • SAS
English • Italian (Basic)

SOLUTIONS

System architecture • OOP
GUI (Web & Desktop) • RESTful APIs

SOFTWARE

Cloud Compute (EC2, GCE)
Dist. Compute (Custom[1], Spark, Hadoop)
NoSQL (Mongo, Couch)
SQL (SQLite, MySQL)
IT (VMWare, Fog, AD, ...)
Utilities (Git, VS2013, JetBrains, ...)

PROFESSIONAL EXPERIENCE

INSPIRATA | Software Engineer
May 2015 - Present | Tampa, FL

- Designed and constructed a file & metadata system for storing/allocating research data – implementing preparatory checks for FDA validation.
- Maintained and extended an in-house HPC cluster to be deployed more easily in multiple computing pools, some on LAN and some in cloud.
- Developed a system for collecting, securing, cleaning, and analyzing high resolution medical images.
- Worked with a focused group of Algorithm Scientists to develop ANN- and biologically-based analysis software.
- Developed miscellaneous tools to support development of algorithms and collection of image data, including: a multi-specification, multi-format image server; a format for collecting, storing, and versioning image annotations; and an extensible window processing function (not unlike MATLAB's blockproc) for complicated types of images.

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 Networking & Telecommunications team to improve campus connectivity and scalability.
- Served on Technology Advisory Committee to compose 5- and 10-year Equipment Renewal & Replacement Plans for New College.
- Authored documentation for the Office of IT to assist with troubleshooting and common end user issues.

ID TECH CAMPS | Assistant Director
Summers 2011-2014 | Stanford, CA; Princeton, NJ; Tampa, FL; Atlanta, GA

- Oversaw the curriculum and activities of a sleep-away technology camp for 7-17 year olds with courses in programming and game design.
- Managed staff of over 20 instructors and provided technical and academic support for their individual curricula.
- Provided individual- and group-instruction of semi-formal STEM curricula.
- Provided on-site technical support and network management for over 130 workstations (with 150+ daily operators).

RESEARCH EXPERIENCE

OPTICAL SPECTROSCOPY AND NANOMATERIALS LAB | Undergraduate Researcher
Jan 2013 – Sep 2015 | Sarasota, FL

- Worked with Prof Mariana Sendova and Dr Brian Hosterman to collect, analyze, and organize over 30,000 Raman spectra.
- Modeled edge-enhanced Raman spectra in differing geometric and crystallographic configurations for Silicon wafers.
- I wrote my honors thesis on this. Please ask me about it!

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1 At Inspirata we've developed and maintain a propriatary HPC cluster solution.
† Additional information and references readily available.