Candice R. Withrow

candice.withrow@gmail.com | portfolio: cwithrow.github.io

SUMMARY

- Recent graduate: M.S. in Computer Science, project using Apache Spark
- B.S. in Physics; Experience using computational methodology to model and learn from data

EDUCATION

M.S., Computer Science, August 2016 — Sam Houston State University, Huntsville, TX
GPA: 4.0 on a 4.0 scale
Courses in: Data Mining, Data Science, Distributed Computing, Artificial Intelligence
Major projects:

- Master's project- "Analyzing Astronomical Data Using Apache Spark"
  - Explored Spark's ability to handle problems involving complex math
  - Used PySpark to process and analyze numerical data, utilizing Spark's Dataframes and Machine Learning library
- Software Engineering project- SAFE!
  - Android application (Java) for an increasingly common food allergy
  - Designed entire concept and database; wrote or oversaw all documentation

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B.S., Physics, May 2008 — Sam Houston State University, Huntsville, TX

Graduated Magna Cum Laude, GPA: 3.68 on a 4.0 scale

- Ronald E. McNair Post Baccalaureate Achievement Program scholar
- Recipient of Earl S. Burrough Scholarship, 2006 – 2008

Graduate Studies, Engineering, 2011 – 2012 — Colorado State University, Fort Collins, CO

Concentration: Mechanical Engineering

Courses in: Advanced Fluid Mechanics, Mechanics of Materials, Alternative Energy

SKILLS

Development

- Basic skills in Java, Python, SQL
- Requirements Specification, Project Presentation

Data Analysis

- Apache Spark, Excel, SciPy libraries, statistics and linear algebra

EXPERIENCE

Colorado State University| Fort Collins, CO | May 2011 to August 2011
Research Assistant

Dr. Don Radford, Professor of Mechanical Engineering; Advanced Materials

- Conducted thermo-mechanical analysis tests on composites to study thermal expansion and fiber-matrix bonding
- Measured cohesion of fibers using scanning electron microscope

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Fairfield Nodal | Sugar Land, TX | June 2008 to April 2009
Jr. Geophysical Analyst

- Configured Kirchhoff depth migrations to build high resolution 3D seismic maps
- Performed quality checking before final delivery to clients; archived important stages of processing

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Department of Physics | Sam Houston State University, Huntsville, TX | June 2006 to May 2008
Research Assistant

Dr. Barry Friedman, Professor of Physics; Theoretical

- Modeled arrangement of atoms using Fortran in a distributed environment
- Co-authored paper: B. Friedman and C. Withrow, “Stripes or an Anisotropic Crystal in the N=2 Landau Level?”, Physica B 403 1500 (2008)

Dr. Brian Oetiker, Associate Professor of Physics; Observational Astronomy

- Used IRAF and IDL languages to process batch images and identify potential extrasolar planets