Alistair W. McGregor

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Broadly-experienced data analyst / engineer / scientist recently relocated to the Phoenix area (Tempe, AZ)
Searching for local analytics roles (preferably in Scottsdale or Tempe); open to remote opportunities

EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY
B.A., Physics, Planetary Science (Majors), Astrophysics (Minor) *Graduated Spring 2013*

EXPERIENCE

GUAVUS, A THALES COMPANY, *SAN JOSE, CA*
Analytics / Data Engineer, *December 2017 – September 2018*
- Contributed to research, evaluation, assembly, coding, and documentation of a generalized 'analytics engine', to continue deploying at current telco clients and to expand across industries and use-cases (building increasingly unsupervised ML / AI methods into a primarily supervised-learning-fuelled platform.)
- Completed modules in pure Python, with Pandas, AND with PySpark for generating representative samples from any dataset at minimal cost (using progressive sampling and convergence diagnostics from MCMC literature.)
- Evaluated the KNIME Analytics Platform for the creation of a self-contained EDA and validation toolkit to be used across the organization by non-analysts (sales engineers, integration specialists, etc.) Completed workflows for a subset of our use-cases, conducted tutorials for sales and analytics teams, and oversaw handoff to several colleagues in anticipation of my departure.

GUAVUS, *SAN MATEO, CA*
Sr. Data Analyst, Business Insights, *March 2016 - December 2017*
Data Analyst, *February 2014 – March 2016*
- Performed EDA, validation, and facilitated understanding/ingestion of large telecommunication databases (e.g. customer service, operations, churn, SNMP, topology.)
- Created realistic statistical and physical models of network and customer-care events, developing a Python toolbox for Proof of Value/Concept work along the way. Implemented prototypes using the Spark distributed framework.
- Investigated causality analysis techniques for time series and point processes, again evaluating potential for distributed computing deployment.
- Set-up and administered to internal databases (in a half-dozen flavors of SQL), investigated bugs and inconsistencies, wrote reports, ERD diagrams, built ETL pipelines for ingested client data.
- My customer-facing PoC/PoV work led to successful pre-sales and pilot contracts worth millions of dollars (with clients such as TWC/Charter, Comcast/Xfinity, Ziggo/Liberty Global, Suddenlink, Telus, Telstra.)

UC BERKELEY, *BERKELEY, CA*
Researcher, Space Science Lab, *June 2013 – November 2013*
- Performed cross-correlation of Earth magnetospheric data obtained by NASA's THEMIS mission.
- Developed new statistical techniques for comparison of ground-based and spacecraft observations.
- Optimized algorithms and tools for data retrieval and subsequent analysis.
- Compiled reference documents to aid colleagues and future contributors.
Research Co-investigator*, September 2010 – May 2013*
- Data reduction of images (with IDL and Python scripts) taken from the Gemini Observatory in Hawaii.
- Deprojection of images and mapping of Io's volcanic surface for comparison with previous research (co-author on resultant paper. "Global Near-IR Maps of Io from Gemini-N and Keck Observations in 2010, with a Specific Emphasis on Kanehekili Fluctus, Janus Patera, and Loki Patera")
- Worked directly with PI and Dean of Astrophysics Imke de Pater.
Textbook Editor / Researcher*, September 2012 – March 2013*
- Gathered sources, wrote content for revision of Physics textbook.
- Corrected proofs and final manuscript, advised on editing, formatting, content. ("Mechanisms of Conventional and High Tc Superconductivity", By V. Z. Kresin and S.A. Wolf… Find me in the acknowledgements section!)
- Contributed similarly to other papers, research, and compilations.
Physics Department Lab Technician*, June - August 2012*
- Managed setup and upkeep of physics laboratories for Berkeley Summer students.
- Instrument troubleshooting, installation and repair, time-sensitive experiment logistics.
- Designed and carried out tutorials on operation for instructors and students.

MEYERS NAVE, ***OAKLAND, CA***
Intern / Admin Assistant*, May 2013 - August 2013*
- Compiled briefs and performed original research on bay area labor and employment cases.
- Supported firm chair Art Hartinger at court events and negotiations.
- Established improved firm communication and data storage solutions.
- Performed department-wide billing rate analysis and overhauled rate structures.

WILLIAM R. THORSEN HOUSE, ***BERKELEY, CA***
Vice President*, Fall 2011,* ***Treasurer****, Summers 2011+2012*, ***Recruiter****, Fall 2012*
- Student management and caretaking of the famous Greene & Greene 'Ultimate Bungalow'.
- Enforced house policies and gathered rent, served as conflict mediator, and generated monthly budgets.
- Led training for architectural tours, recruited new members.
- Guided and contributed to construction of $20,000 Arts & Crafts enclosure restoration project.

HEWLETT PACKARD, ***CUPERTINO, CA***
IT Services and Software Engineering Intern*, May 2010 - August 2010*
- Performed network inventory, system status/diagnosis/repair.
- Software development (JAVA) focused on GUI enhancements for IUM, a mediation platform for networks carrying voice and data services.

TECHNICAL SKILLS

Advanced UNIX OS (e.g. Mac, RHEL) and Windows OS skills
(Incl. extensive bash scripting experience)
Python (esp. Pandas, SciPy, NumPy, with Jupyter notebooks)
Microsoft Excel (VBA/macros, pivot tables, etc.)
All aspects of ETL, Data munging, EDA, using the above tools
Experience creating and integrating d3.js dashboards into existing reports
KNIME Analytics Platform
Various SQL languages and DBMS' (MySQL, PL/SQL, Postgres, MS Server, Netezza, Teradata, infiniDB)
R for linear regression and cross-correlation work
Matlab/Octave stats and ML packages (and Labview for physics lab applications)
Extensive experience with IDL, esp. for data analysis
Passably proficient in Java(script), PHP, HTML, XML, Applescript
Technical writing with LaTeX markup
French/English bilingual. Semi-fluent Spanish speaker

STANDARDIZED TESTING

AP: Computer Science AB, 4; Calculus BC, 5; Physics C, 5; Economics (micro/macro), 5; Biology, 5; French and Spanish Language and Literature, 5.
SAT subject tests: Math II, 780; Biology, 760; Chemistry, 800; French, 800;
SAT: 2260 (Verbal/Math/Writing: 800/770/690)
GRE: Verbal/Math/Writing: 98th/88th/71st percentile