

Phillip Sells

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SUMMARY

A detail oriented professional with a passion for technology and information security with a strong work ethic. Since graduation in 2015 has been a stay-at-home parent and now that children are of school age is reentering the workforce. Projects since graduation have included many home automation platforms utilizing Raspberry Pi and Arduino boards, as well as developing python programs for web data extraction and optimization. A self-starter who can complete research work unaided and can integrate results into a team pipeline. Eager to increase skill set and knowledge in the information technology and security fields.

TECHNOLOGY SUMMARY

Certifications: CompTIA A+
CompTIA Network+
CompTIA Security+

Systems: Linux, Windows, Mac OS X

Languages: IDL, Python, C++, MATLAB

EDUCATION

University of California, Berkeley
B.A., Astrophysics • GPA: 3.63 Graduated 2015

Research work:

- Millisecond radio bursts at cosmological distances (2013 to 2015): Worked as a research associate with Principal Investigator Casey Law PhD on the discovery and analysis of fast radio bursts (FRBs) observing in the high galactic latitude. Observational data was collected at the Karl G. Jansky Very Large Array (VLA) in New Mexico for 100+ hours. Data was captured every two milliseconds resulting in 500 "images" a second. Responsible for writing scripts to move data from the drives at the VLA to the local scratch at the National Energy Research Scientific Computing Center (NERSC) in Oakland, CA. Modified and debugged the proprietary python program for the detection of FRB's to be ran on the NERSC Carver compute cluster. Program was modified to split each image in half and merged with the half from the image before or after it, respectively. This was done to look for FRB's that may have been overlooked since their values were not statistically large enough for a flag on the first iteration through the data. Data analysis was completed in late 2014, and the python scripts were redesigned to work with the new Edison cluster at NERSC for future team use.
- Imaging of the Orion-Eridanus Superbubble from hydrogen's 21cm spectral emission line. More than twenty hours of observation was completed using the Lueschner Dish in Orinda, CA. Observational patch of sky was approximately 2800 square degrees with 2 degree spacing creating 700 unique profiles. Column density was derived from the brightness temperature of the interstellar gas which allowed for the calculation of mass in each region. Using the shift in frequency from the known 21cm line frequency of 1420.405751786 MHz the linear velocities were computed. Mean velocity values of each of the 700 profile's spectral lines were determined and color coded. Iterating through the pixels each profile's color was averaged with neighboring pixels which derived a low-resolution image of the Orion-Eridanus Superbubble. Movement and tracking with the Leuschner Dish and all data analysis was completed with Interactive Data Language, IDL.

AWARDS

NASA Aerospace Scholar 2012
Marshall Space Flight Center, Huntsville, AL

EXPERIENCE

Fairfield Residential LLC, San Diego, CA

Property Manager 2006-2011

- Leasing consultant 2006-2008 for 448-unit apartment community. Promoted in 2008 to property accountant. Handled all financial processing with rent collection as well as the communities monthly and annual expenses with outside vendor services.
- Promoted in 2009 to property manager of 82-unit condominium community. Leader of a team of two. Managed the day-to-day tasks of the maintenance supervisor ensuring units were ready on time and within budget. Created and managed annual budget for maintaining property appeal, capital upgrades, and profitability for the property's investors.
- Promoted in 2010 to property manager of a 200-unit apartment community. Leader of a full-time team of six between the office and maintenance personnel. Held weekly meetings with team to address current resident concerns, property's visual appeal, trainings for updated corporate policies as well as setting goals for the community's continued profitability for investors. In 2011 I took on a part time role while remaining the active property manager to travel to other Fairfield properties and assist budget creation, accounting issues, and office staff trainings to remain in compliance with Federal Fair Housing and local city ordinances.

Capital City Ventures, Citrus Heights, CA

Technician 2003–2005

- Motorola certified technician for Nextel, Sprint, and Blackberry handheld wireless devices. Removed and replaced failed board components, as well as troubleshooted device firmware and software issues.
- Performed and maintained weekly inventory on wireless phones, service parts, and warranty items being returned to the manufacture for defects or damage that was not repairable locally. Operational duties included account receivables and processing, and reconciling point of sale terminals with daily transactions.
- Handled all outside customer and vendor contact such as setting up product demos and Q&A sessions with direct manufacture representatives to better help serve the customer base.