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## Abdalah El-Barrad

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<https://github.com/abdalah>

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614.558.6663

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### EDUCATION

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*Bachelors of Science in Economics and Applied Mathematics (Dual Degree with Computer Science Minor)*, Ohio University, Athens, expected graduation May 2017, 3.47 GPA (3.67 Major)

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### EXPERIENCE

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Voinovich School of Leadership and Public Affairs

Athens, Ohio

*Research Assistant/Data Analyst*

February 2015-Present

- Work in R to analyze data for many government agencies including the Ohio Department of Education, Ohio Association for Child Caring Agencies, Ohio Department of Mental Health, and many more
- Create dynamic visualizations with R, HTML, and JavaScript using the shiny package
- Promoted to Voinovich Scholar for the 2015-2016 school year to continue researching
- Made LaTeX reports in R Markdown to make comparisons between agencies with aggregate
- Manage and maintain automated R script files that generate reports using live data from servers
- Wrangle databases and data frames (including spatial polygon data frames) in R and SQL using packages such as dplyr, plyr, reshape, and more to prepare data for statistical analysis and visualization
- Evaluated SAS's EVAAS model on Ohio teachers and its effectiveness on teacher evaluations
- Created Leaflet choropleths to display locations in Appalachian Ohio with high minority percentages to help the Ohio Healthy Youth Environments Survey allocate resources pertaining mental health
- Use Census, ICPSR, and other databases to find public data as needed for specific projects
- Work on Youth-Centered Permanency pilot project led by the Ohio Department of Job and Family Services and the Public Children Services Association of Ohio to compare counties in the pilot project against similar counties using the Mahalanobis statistical method and the MatchIt R package
- Evaluate past foster children placement in Ohio to determine optimal foster care program arrangement for future child entering the foster care system using advanced data mining techniques
- Create functions when needed to solve data wrangling and other problems in R
- Give presentations of past and current projects to impress employers, agencies, and policymakers

Center for Electrochemical Engineering Research

Athens, Ohio

*Web Developer*

April-May 2014

- Worked on improving the CEProTECH website with web development tools such as HTML, CSS, and PHP on the WordPress web platform as needed to refine the site to my employer's needs
- In charge of organizing and maintaining office space while acting as the secretary in tandem with my other duties as the web developer for the Center for Electrochemical Engineering Research (CEER)
- Took photographs of building and labs to improve design of the CEER website with original pictures
- Familiarized myself with office to develop a website that reflects the center's research and functions
- Created posters for advisory board meeting and created blurbs for each of the current CEER research assistants and staff to show their current research projects and interests at CEER

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### SKILLS

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*Good At:* C++, R/RStudio, LaTeX, HTML, Microsoft Excel, Arabic

*Familiar With:* MATLAB, JavaScript, Python, SQL, NetLogo

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### EXTRACURRICULAR ACTIVITIES

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*Secretary*, Ohio University Economics Society (August 2015-Present)

*Member*, Ohio University Math Club (August 2015-Present)

*Member*, Ohio University Association for Computing Machinery (ACM) (February 2015-Present)

*Actor/Head Lighting Technician*, AVW Productions (August 2013-January 2015)

*Columnist*, The Post (August-December 2013)