

# Riley M. Rudd

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R Programming | Java | Python | HTML/CSS/JavaScript | Google Earth Engine | GitHub | Google Ads | 6Sense  
Certified Digital Marketing, *HubSpot Academy* | Certified Inbound Marketing, *HubSpot Academy*

## [ Education ]

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### Master of Engineering in Computer Science – Data Analytics & AI

December 2024

*Virginia Tech, Blacksburg, VA*

- Relevant Coursework: Software Design and Data Structures, Intermediate Data Structures and Algorithm Analysis, Information Visualization, Machine Learning I

### Bachelor of Arts in Economics

*Virginia Tech, Blacksburg, VA*

- Cumulative GPA: 3.82
- Relevant Coursework: Analysis of Economic Data, Business Calculus, R Programming in Economics

### Bachelor of Science in Consumer Studies – Financial Services & Counseling

*Virginia Tech, Blacksburg, VA*

- Cumulative GPA: 3.82
- Class of 2023 Outstanding Senior

## [ Relevant Professional Experience ]

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### TriMech Solutions, Richmond, Virginia

April 2021 – Present

*Marketing Specialist*

- Achieve quarterly lead generation goals using inbound and outbound marketing tactics such as search engine optimization, social media, A/B testing, online advertising, email marketing and more.
- Capture and report key marketing metrics and optimize campaigns on an ongoing basis.
- Completes website updates including link building, site optimization, landing page development.
- Develops and executes digital marketing strategies including Google Ads campaigns, emails, SEO/SEM.
- Writes on technical topics including client case studies, producing 8+ publications per quarter.
- Participates in volunteer Social Pod Committee ideating and executing employee engagement campaigns, both in philanthropic and professional development areas.
- Awarded 2023 Impact Player President's Club.

### Reassessing Drought Indicators for U.S. Crop Insurance Program

August 2022 – December 2022

*Research Assistant*

- Extracted weather data from multiple remotely sensed datasets using Google Earth Engine and Python, and utilizes R programming to analyze data and inform government decisions.
- Conducted statistical analysis in R to evaluate differences in indices and implications to payout functions.
- Analyzed data for implications to insurance payout functions, translating findings into recommendations for government decisions.
- Extracted weather data from multiple remotely sensed datasets using Google Earth Engine and Python, utilized R programming to analyze data and inform government decisions.
- Conducted statistical analysis in R to evaluate differences in indices and implications to payout functions.
- Wrote synthesis reports on research findings, including creating graphics to compare datasets.
- Presented research findings to stakeholders both visually and orally.

### Data Science for the Public Good, Blacksburg, Virginia

June 2022 - August 2022

*Young Scholars Research Intern*

- Utilized computer software and R programming to analyze data on weather anomalies and aggregate welfare to inform financial donor decisions.
- Created visual and oral presentations for three stakeholder meetings with The World Bank, translating research findings into understandable, actionable objectives.
- Developed [R-shiny webapp](#) to translate research findings with interactive maps and statistical analyses.
- Extracted weather data from Google Earth Engine using Python & household welfare data in R from World Bank surveys
- Conducted linear statistical analysis in R to assess relationships among and between variables.
- Generated and presented research poster and interactive website to synthesize analysis and outputs.

### ***[ Leadership Positions and Publications]***

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Back, C., Benami, E., Chen, S., Gupta, M., Poghosyan, A., Rudd, R., & Tajanpure, P., (2022). Sensing Drought in the Sahel for household resilience. University of Virginia Biocomplexity Institute. <https://dspgtools.shinyapps.io/sensing-drought/>

Back, C., Gupta, M., & Rudd, R. Sensing drought in the Sahel for Household Climate Resilience. 2022 Summer Undergraduate Research Conference, Virginia Tech; July 2022

[https://www.research.undergraduate.vt.edu/content/dam/research\\_undergraduate\\_vt\\_edu/pdf/2022-Summer-Abstract-Book.pdf](https://www.research.undergraduate.vt.edu/content/dam/research_undergraduate_vt_edu/pdf/2022-Summer-Abstract-Book.pdf)

### **Virginia Tech Consumer Studies Organization**

December 2021 - Present

#### *Founder and President*

- Organizes monthly meetings including guest speakers, career building exercises, and study sessions.