

1. Name (first and last)

Text Response

Davon Woodard

Statistic

Statistic	Value
Total Responses	1

2. Email

Text Response

davon@vt.edu

Statistic

Statistic	Value
Total Responses	1

3. Contact Phone

Text Response

312.206.0398

Statistic

Statistic	Value
Total Responses	1

4. In Fall 2018 you will consider yourself to be a:

#	Answer	Bar	Response	%
1	VT Freshmen Undergraduate Student		0	0%
2	VT Sophomore Undergraduate Student		0	0%
3	VT Junior Undergraduate Student		0	0%
4	VT Senior Undergraduate Student		0	0%
5	Between Undergrad and Graduate school		0	0%
6	Graduate school		1	100%
	Total		1	

Statistic	Value
Min Value	6
Max Value	6
Mean	6.00
Variance	0.00
Standard Deviation	0.00
Total Responses	1

5. What degree(s) and major(s) are you pursuing along with institution?

Text Response
Phd - PGG-UEDP (Urban Planning) - VT

Statistic	Value
Total Responses	1

6. List any Minors you are pursuing.

Text Response

Urban Computing Certificate

Statistic

Total Responses

Value

1

7. List any honors and/or awards received:

Text Response

Statistic

Total Responses

Value

0

8. Currently we have 1 program accepting applications which includes:

#	Answer	Total Responses
15	Data Science for the Public Good	0
	Total	0

Statistic	Data Science for the Public Good
Min Value	-
Max Value	-
Mean	0.00
Variance	0.00
Standard Deviation	0.00
Total Responses	-

9. Essay (up to 500 words): "What do you want to get out of this experience?"

Text Response

I am applying for the Virginia Tech (VT) DSPG program both for what I can contribute to the program, as well, as what I can gain from the experience. As detailed later, I have wide-ranging experiences which, collectively, will be beneficial during the fellowship, including professional experience in non-profit and government management, academic experience in computer science/analytics and economics, and research/application experience in urban data science. The benefit of participating in this program, for me, is two-fold: 1. Academic Development: As a PGG-UEDP doctoral student and urban computing certificate NSF fellow, my core research focus is two-fold: First, how, using big data, to ensure that our home cities actually reflect and meet the needs all of our citizenry; and, second as well as, using data science to increase the efficacy and efficiency public sector service delivery. 2. Professional Development: Throughout my academic career, the mission of land-grant institutions, "by the people, for the people" has been instilled in me. As a future academician, bringing the most recent and cutting-edge research into real-world application, and guiding the next generation of students in this learning/leading process is core to my professional goals. As such, the DSPG program will provide a strong foundation in practice through which to realize these goals.

Statistic

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Value

1

10. Essay (up to 500 words): "Please describe any previous research experience and/or work experience you may have."

Text Response

Currently at VT, I am a graduate research assistant at the Global Forum on Urban and Regional Resilience. In this role, I research urban finance, specifically longitudinal fiscal resilience, including urban structural and systemic fiscal environments, and how urban balance sheets respond to external shocks and stimulus. My capstone project during my master's work at DePaul University, I served as the data science/advanced analytics fellow on the City of Chicago's Black Market Cigarette Project. In this role, I was charged with creating an inspection model designed to improve the efficiency (program management overhead), and effectiveness (capture rate) of inspections to identify stores which sold untaxed (illegal) cigarettes. The model applied data mining and machine learning techniques to create a weighted, probabilistic "risk" that a store/outlet may sell illegal cigarettes. The model data was created, with respect to: meta-analysis of existing economic research I performed on the topics of tax evasion and black market cigarettes in similar jurisdictions; as well as, by layering non-public administrative and "open" public service data from the City, and Cook County, with external geolocation data. Also at DePaul University, I served as graduate finance research assistant. In this role, I supported research understanding the impact of electing individual banking industry representatives onto federal regulatory agency boards had on respective corporate stock prices and balance sheets. Finally, after earning my BS in Public Policy from Michigan State University (MSU), and prior to returning to graduate school at DePaul University, I spent 12 years in nonprofit and government management. Beginning in fundraising management, my position focus expanded to include program management, strategic partnership development and human capital development in both the nonprofit and governmental sectors. I have served in roles in multiple sectors including advocacy, health, arts, parks and recreation, youth development, and public safety.

Statistic

Total Responses

Value

1

11. Essay (up to 500 words): "Please describe your background (courses taken, research projects, etc.) in statistics and mathematics."

Text Response

At DePaul University, I earned two master's degrees, a MS in Economics and a MBA in Predictive Analytics. In addition to my capstone fellowship with the City of Chicago, at DePaul University, I completed the following data science/analytics projects: - "Black Market Cigarettes: Predicting High-Risk Retail Outlets in the City of Chicago", 2015 - "Using LDA to Predict Ridership in Washington, DC Bike Share Program", Kaggle Data, 2015 - "Comparing Random Forest and Naive Bayesian in Loan Success Rates", 2015 Including computer science, analytics and information sciences in this grouping, I have completed the following coursework at various levels of study: Doctoral Coursework (VT) - CS 6604 – Data Mining Large Network (Network/Graph Theory) (2017) Master's Coursework (DePaul): - ECT 584 – Web Data Mining for Business Intelligence (2015) - IS 567 – Knowledge Discovery Technologies (2014) - CSC 455 – Databases for Analytics (2014) - ECO 511 – Economics Forecasting (2014) - ECO 507 – Research Methods for Policy Analysis I (2013) - ECO 508 – Research Methods for Policy Analysis II (2013) Undergraduate (MSU): - STT 421 – Statistics I (2001) - MTH 132 – Calculus I (1997)

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12. Essay (up to 500 words): "Please describe your background (courses taken, research projects, etc.) in social and behavioral sciences."

Text Response

Firstly, during my master's coursework, I completed the following economic research projects: - "Strategic Analysis of the U.S. Retail Eyeglass Market and the Effect of Online Retailers," 2014 - "Spy Games: The Game Theory of Signaling, Sub-games, Cloaks, and Daggers," 2013 - "Impacts of Real and Perceived Public Sector Corruption in 80 Global Corporate Environments," 2013 - "Third Sector Exemptions and the Provision of Local Municipal Public Goods," 2013 - "Forecasting IBM Weekly Stock Price with Google Trend Data, 2004-2014", 2014 Secondly, my coursework in the social and behavioral science is extensive as my undergraduate degree was in Public Policy and Psychology, and as mentioned prior, I earned a MS in Economics. Across the varying levels of coursework, I have completed, or am currently enrolled in, the following courses: Doctoral Coursework (VT): - SOC 6214 – Social Issues in Qualitative Methodology (Current) - UAP 5564 – Information Technology, Society, and Policy (Current) - GIA 5374 – Electronic Governance (2017) Master's Coursework (DePaul): - ECO 515 – Microeconomics of Market Organizations (2013) - ECO 516 – Economics of the Public Sector (2013) - ECO 558 – International Macroeconomics (2013) - ECO 526 – Business Strategy (2013) - ECO 525 – Game Theory (2013) - ECO 505 – Advanced Microeconomics (2012) - ECO 506 – Advanced Macroeconomics (2012) Undergraduate (MSU): - PRM 404 – Public Sector Budgeting and Program Evaluation (2001) - UP 201 – Planning Urban and Regional Development (2001) - UP 343 – Planning Theory (2001) - SOC 330 – Social Stratification (2001) - SOC 424 – Complex Organization (2001) - PSY 424 – Child and Family Psychology (2001) - PLS 313 – Public Policy Analysis (2000) - PSY 236 – Personality (2000) - PSY 488 – Phenomenological Psychology (2000) - SOC 381 – Intentional Social Change (2000) - EC 335 – Taxes, Government Spending, and Public Policy (1999) - PLS 100 – Introduction to American National Government (1999) - PSY 280 – Abnormal Psychology (1998) - ISS 215 – Social differentiation and Inequality (1997) - PSY 101 – Introductory Psychology (1997) - PSY 295 – Data Analysis Psychological Research (1997)

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13. Essay (up to 500 words): "Please describe your background in programming."

Text Response

Throughout my coursework, research, projects and fellowships, I have leveraged Github, Matlab, Python, R, SPSS, SQL, STATA, Tableau, and WEKA. For my fellowship with the City of Chicago, I have become conversant in R, SQL, and Github. Through both of my graduate research assistantships, I have heavily used STATA, and Github. I am currently auditing: UAP 5114, Computer Applications in Urban Planning, updating my skills in Python, specifically for social media and website scraping and geocoding; and, GEOG 5064, Elements of GIS, as a overview course in GIS and its applications. Doctoral Coursework: - UAP 5114 – Computer Application in Urban Planning (Current/Audit) - GEOG 5064 – Elements of GIS (Current/Audit) Master's Coursework: - CSC 424 – Advanced Data Analysis (2015) - CSC 529 – Advanced Data Mining (2015)

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14. Essay (up to 500 words): "Please provide information about other significant courses you have taken within your field of study."

Text Response

Doctoral Coursework: - AAEC 6444 – Regional and Urban Economics (2017)

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1

15. Please list the name and contact information for 2 references (teachers, mentors, or employers) that we will contact for a letter of reference/brief survey. Please make sure you list the correct email and they know we will be contacting them soon (within the next week). Only 2 references will be contacted; do not list more than 2.

Text Response

Eric Jardine - (ejardine@vt.edu/Assistant Professor-Political Science/VT) and David Bieri - (bieri@vt.edu/Associate Professor - PGG/VT)

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Value

1