JOSHUA T. MEADOWS

(304) 362-2996 1001 Fair Oaks Drive. joshuatmeadows@gmail.com
Fairmont, WV 26554

EDUCATION

West Virginia University

M.S. in Business Data Analytics, GPA 4.0 | August 2021
M.S. in Mathematics (AoC: Applied Mathematics), GPA 4.0 | May 2019
B.S. in Mathematics, GPA 3.7 | May 2017
B.A. in Philosophy, GPA 3.7 | May 2017

TEACHING AND RESEARCH EXPERIENCE

SERVICE ASSISTANT PROFESSOR | May 2019 – Jan 2020

West Virginia University, John Chambers College of Business and Economics

- Utilized unique combination of technology experience and community outreach to bridge skills gap in West Virginia communities through service-oriented outreach and community projects
- Subject matter expert in data analytics, regularly sharing expertise through presentations on relevant industry topics such as AI in government and technology consulting
- Mentored student groups in experiential learning projects and provided insights to economic development groups on topics such as digital equity

VISITING INSTRUCTOR | May 2019 – Jan 2020

West Virginia University, Extension Service

- Developed K-12 computer science curricula, specializing in curricula that could be taught in rural areas without high speed internet access and ADA accessible lessons
- Organized and led community events to promote computer science education throughout West Virginia
- Planned and instructed computer science professional development programs for educators
- Coordinated computer science activities at various 4-H events throughout West Virginia

RESEARCH ASSISTANT | May 2017 – May 2019

West Virginia University, Extension Service

- Developed STEM curricula that utilized experiential learning model for use at 4-H clubs, camps, and events nationwide
- Instructed STEM activities at various 4-H events throughout West Virginia

SUPPLEMENTARY INSTRUCTION LEADER | Aug 2016 – May 2017

West Virginia University, Department of Mathematics

- Created interactive lesson plans to reinforce students' learning through active repetition tailored for various learning styles
- Coordinated twice-weekly review sections to solidify students' understanding of course material

STEM AMBASSADOR | May 2016 – Aug 2016

West Virginia University, Extension Service

- Taught interactive STEM lessons at 4-H camps across West Virginia

TEACHING ASSISTANT | Aug 2015 – Dec 2015

West Virginia University, Department of Biology

- Facilitated curriculum development and lesson understanding for BIO 115
- Coordinated group assignments and ensured group progress and comprehension

PROFESSIONAL EXPERIENCE

SENIOR ANALYST **| July 2021 – June 2022**

Viatris, Pricing Analytics

- Developed Extract Transform Load (ETL) processes to automate data acquisition for business intelligence from internal and external sources
- Forecasted the future effects of potential business decisions using advanced analytics
- Published interactive data visualizations to provide self-service business intelligence insights for operations and leadership

PROFESSIONAL TECHNOLOGIST II **| January 2020 – July 2021**

West Virginia University, Extension Service

- Developed web applications that were AAA-rated by the Web Content Accessibility Guidelines for the University's unique accessibility and reporting needs
- Administered SQL databases for web content storage and acted as data privacy officer to ensure compliance with the Child Online Privacy Protection Act
- Deployed web applications and managed the hosting of websites on Windows and Linux web servers
- Instructed numerous technology professional development sessions for faculty and staff on topics such as distance learning, remote work, and collaborative tools

LAB TECHNICIAN **| May 2014 – Aug 2015**

REI Consultants, Inorganic Laboratory

- Prepared aqueous samples for spectrometric analysis to ensure compliance with environmental regulations

QUALITY CONTROL SPECIALIST **| Mar 2010 – Dec 2012**

Meadows Machine Inc.

- Performed quality control on high-precision, manufactured parts and prepared them for shipment
- Operated Computer Numerically Controlled (CNC) machines

UNIVERSITY SERVICE

DIRECTOR **| 2022**

Data Driven WV

- Data Driven WV is an outreach center located in the Management Information Systems Department of the WVU John Chambers College of Business and Economics. As director, I oversee DDWV's efforts to fulfill its mission of connecting organizations, including business, non-profits and government entities, with WVU students and faculty to provide data-driven, technical insights and solutions.

SUBCOMMITTEE CHAIR **| 2022**

WVU John Chambers College of Business and Economics Diversity, Inclusion, Culture Equity Committee

- Served as chair of Service Subcommittee, a subcommittee dedicated to instilling a culture of service at the college through targeted service events

COMMITTEE MEMBER | 2020 – 2022

WVU John Chambers College of Business and Economics
Severed on:

- **WV Internet for All Committee:** a group comprised of members of the WV Office of Economic Development, Tilson Consulting, WVU, and Marshall to advice the state on participation in federal Internet for All programs
- **Diversity, Inclusion, Culture Equity Committee:** a group charged with celebrating, championing, and embedding diversity, equity, inclusion, and accessibility into all facets of the Chambers College
- **IEP Designation Committee:** a group comprised of WVU stakeholders tasked with applying for WVU's IEP designation

WVU Extension Service
Served on:

- **Youth Protection Committee:** a group that streamlined WVU Extension Service's youth protection reporting to meet state and federal guidelines while ensuring the safety of children who visit WVU
- **4-H Virtual Camping Taskforce:** a group that digitized 4-H's summer camps in response to COVID-19
- **Organizational Structure Committee:** a group that advised leadership on current organizational structure and made recommendations for future enhancements
- **Diversity, Equity and Belonging Committee:** a group that fostered a culture of diversity, equity, and belonging in WVU Extension Service through policy changes and professional development

CS INNOVATOR FELLOW | 2019

National 4-H CS Pathway Advisory Committee

- Collaborated with the other four CS Innovator Fellows from around the nation to design a roadmap for building a wide-reaching 4-H CS program

HIRING COMMITTEE MEMBER | 2018 – 2021

WVU Extension Service
Served on committees that interviewed and selected candidates for positions of:

- Dean's Executive Assistant
- Visiting Instructor
- STEM Ambassadors

CO-DIRECTOR/ASSISTANT DIRECTOR | 2018 – 2021

WVU 4-H Code Camp

- Co-created WVU 4-H Code Camp, a weekend long camp offered every February, that provides youth of various experiences access to CS through hands-on activities and informal career mentoring and allows 4-H faculty, staff, and volunteers to learn through hands-on experience
- Coordinated venue arrangements, designed curricula, and trained volunteers
- Recruited volunteers, instructors, and guest speakers
- Procured grant funding and community partnerships

AWARDS

WEST VIRGINIA UNIVERSITY

- 2020 WVU Values Coin

Eberly College

- Jess & Margaret Deeds Mathematics Scholarship
- Morrissey-Ropp Chemistry Scholarship

- Diversity Scholar

Extension Service

- 2020 Award of Excellence for Individual State-Based Staff Performance Excellence
- 2019 Award of Excellence for Innovation Excellence

HEALTH SCIENCE AND TECHNOLOGY ACADEMY

- University Tuition Waiver Recipient
- Outstanding Senior Award

PUBLICATIONS

SUBMITTED

Co-author

A. Plemmons, J. Meadows, J. Fraser, C. Ramezan, B. Price, *Outreach Centers and AACSB Societal Impact Standards: A Case Study of Data Driven WV and Community-Focused Experiential Learning.* The Journal of Higher Education. Submitted December 2022.

PUBLISHED

Co-author

J. Robertson-Honecker, J. Meadows, D. Hartley, J. Murray, Google Inc., *Game Changers.* National 4-H Council. October 2019. Available at 4-h.org/nysd

J. Robertson-Honecker, J. Meadows, D. Hartley, J. Murray, Google Inc., *Code Your World.* National 4-H Council. October 2018. Available at 4-h.org/nysd

Acknowledgment

Ciesielski, K., *Minimal degrees of Genocchi-Peano functions: Calculus motivated number theoretical estimates*. Real Analysis Exchange, 43(2), 281. 2018. Available at researchrepository.wvu.edu

CONFERENCE PRESENTATIONS

J. Meadows, *Tell Me What I Need to Know About Technology to Help Me Be Effective*. A presentation on time-saving technology habits. WVU Extension Service Annual Conference. September 2020.

J. Meadows, *Teaching Computer Science… Without Computers.* A presentation on accessible computer science education techniques in low-bandwidth scenarios. National Extension Technology Conference. June 2019.

COURSES TAUGHT AND SPEAKING ENGAGEMENTS

Instructed walk-up kiosk style STEM and Computer Science experiments at:

- 2019 STEM Building Dedication for Donors
- 2018 and 2019 WVU Hour of Code
- 2016, 2017, 2018, 2019 and 2020 West Virginia State Fair
- 2019 Mountain State Invitational STEM Carnival
- 2019 Mercer County Robotics Open House

- 2019 NASA Day in the Park

Instructed week-long STEM and Computer Science courses at:
- 2016, 2017 2018 and 2019 4-H STEM and Agri-STEM Camps
- 2019 4-H Older Members' Conference
- 2018 and 2019 4-H Alpha I & II Camps
- Various County 4-H Camps

Instructed advanced topics workshops such as Python, 3-D Printing, Integrated Circuitry, Microcontrollers and Web Development at:
- 2018 National 4-H Maker Summit
- 2017, 2018, 2019, 2020, 2021 and 2022 4-H Code Camp

Instructed professional development workshops at:
- 2019 STEM Ambassador Training
- Various educational institutions throughout WV
- Virtual workshops for WVU Extension Service Faculty and Staff

Guest speaker at:
- 2022 WVU Code Camp Career Panel
- HSTA Alumni Association Kickoff Event

EXPERIENTIAL LEARNING PROJECTS MENTORED

- **LaunchLab (2022-2023):** Undergraduate student workers and volunteers conducted NLP analysis on coaches' notes to inform LaunchLab's future strategies.
- **Those Who Bloom (2022-2023):** A undergraduate student worker, undergraduate student volunteers, and a graduate student volunteer automated business processes for an art boutique in Thomas, WV
- **WesBanco (Fall 2022):** Undergraduate student volunteers worked with WesBanco to improve business intelligence reporting.
- **WVU Extension Jackson's Mill (2022-2023):** Undergraduate students worked alongside WVU Extension web developers to build a virtual tour application.
- **WVU Extension Federal Excess Property (2022-2023):** Undergraduate students worked alongside WVU Extension web developers to build an application to track excess federal property and associated paperwork.
- **WVU Extension Energy Express (2022-2023):** Undergraduate students worked alongside WVU Extension web developers to build an application to track attendance for the Energy Express summer program.
- **WVU General Counsel (2022-2023):** Undergraduate student volunteers and graduate student workers worked with the WVU Office of General Counsel to construct a peer analysis of Clery Act Crime data and presented their findings to WVU's senior leadership.
- **#500Rising (Spring 2023):** Undergraduate student volunteers worked alongside Kyrus Tech engineers and Kyrus Charities project managers to accelerate #500Rising's mission of training women in essential self-defense.
- **Universal Schedule (Spring 2023):** Undergraduate student volunteers conducted an NLP analysis of focus group transcriptions to analyze feedback trends for a startup's small farms e-commerce platform.
- **WesBanco (Spring 2023):** Undergraduate student volunteers analyzed competitor data to identify actionable trends.

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JOHN CHAMBERS COLLEGE OF
BUSINESS AND ECONOMICS

Dear Cloud Analytics Fellows Program Selection Committee,

As the Director of Data Driven WV, an outreach center focused on connecting West Virginia organizations with students to solve real-world projects and build experience; I am excited to express my interest in participating in the Cloud Analytics Fellows Program. I am a native West Virginian with a deep passion for our state's economic development, and I firmly believe that this program presents an exciting opportunity to foster innovation, design, and climate education through using NOAA resources.

As a faculty member in the West Virginia University Business Data Analytics program, I am strongly interested in experiential learning. I have been exploring ways to incorporate NOAA datasets into my courses to provide real-world examples of how climate data can improve business forecasting accuracy. The Cloud Analytics Fellows Program is an excellent platform to take my interest and experience to the next level and provide my students with valuable opportunities to learn from the best in the field.

The Cloud Analytics Fellows Program's goals align closely with my personal and professional objectives. I am eager to collaborate with NOAA and HTF Project Analysts to develop curated classroom experiences that expose students to working with NOAA datasets associated with NODD initiative and cloud service providers to catalyze innovation and problem-solving. I am also excited to develop an assignment that uses relevant NOAA datasets and cloud resources linked to an entrepreneurship lecture to give my students the context of using the data to solve real-world problems. Through my work with Data Driven WV, I have seen firsthand the power of experiential learning. This approach will help my students develop practical problem-solving skills and foster innovation in climate change research.

As a champion of utilizing climate data for innovation, design, and climate education, my experience and expertise will contribute positively to the Cloud Analytics Fellows Program's success. I am enthusiastic about collaborating with fellow faculty members, NOAA educational specialists, and HTF Project Analysts to achieve program objectives and inspire students to become agents of change.

Thank you for considering my application to the Cloud Analytics Fellows Program. I look forward to the opportunity to contribute to the program's mission of fostering innovation and problem-solving skills in students through the use of NOAA datasets.

Sincerely,

Joshua T. Meadows

Joshua Meadows

JOHN CHAMBERS COLLEGE OF
BUSINESS AND ECONOMICS

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/COURSE PROPOSAL:

Infusing NOAA Datasets into BUDA 530 - Business Statistical Methods 2

Joshua Meadows

Introduction

BUDA 530 is a three-credit graduate-level course that introduces advanced applied statistical methods, including generalized linear models, non-parametric regression, time series analysis, maximum likelihood, and regularization. The course aims to prepare students to analyze and summarize large-scale data to facilitate making informed business decisions. The course is designed for asynchronous learning, with periodic online meetings available for supplementary presentations. This proposal will incorporate NOAA datasets into the study, focusing on time series analysis and forecasting methodology. Homework, a final project, and a group discussion project determine the course's final grade.

Target Audience

The target audience for this course includes graduate students from the M.S. Business Data Analytics Program as well as students from other programs of study, such as the Business Cybersecurity Management Program and Online Hybrid Masters of Business Administration. We expect to serve approximately 30 students in the spring semester of 2024.

Course Objectives

By incorporating NOAA datasets into BUDA 530, we aim to achieve the following objectives:

- To provide students with practical, real-world examples of how climate data can be used to improve business forecasting accuracy.
- To enable students to gain experience in working with large and complex datasets.
- To teach students how to apply forecasting techniques to real-world business problems.
- To foster innovation and problem-solving skills in students.

Incorporating NOAA Datasets

We propose incorporating the NOAA Global Historical Climatology Network-Daily (GHCN-D) dataset into the course to demonstrate how climate data can be incorporated into forecasting models. Specifically, we plan to use the NOAA dataset to teach students how to integrate weather data into forecasting models such as exponential smoothing, ARIMA, and Prophet. The NOAA dataset will

provide students with a rich source of information on temperature, precipitation, and other climate variables relevant to businesses that rely on weather-dependent sales or operations.

Course Activities

To achieve the course objectives, we propose the following activities:

- We will use the NOAA dataset to demonstrate how climate data can be incorporated into forecasting models.
- We will introduce an assignment requiring students to work in groups and present their findings in a written report.
- We will incorporate an entrepreneurial lecture that will provide students with examples of how climate data can be used to identify business opportunities and solve real-world problems.
- We will strongly encourage students to participate in a pitch competition, or showcase focused on how they can use the NOAA data to solve societal problems.

Expected Learning Outcomes

Current Learning Outcomes Enhanced by Addition of NOAA Data

Upon successful completion of this course, students will be able to:

- Forecast time series using non-linear models.
- Use advanced statistical and "big data" techniques to inform businesses about points of interest in their data.

New Learning Outcomes

Upon successful completion of this course, students will be able to:

- Identify and evaluate business opportunities by utilizing data analytics techniques.
- Develop an entrepreneurial mindset in applying data analytics techniques to real-world business problems.
- Analyze cloud datasets to solve business problems.

Conclusion

Incorporating NOAA datasets into BUDA 530 will allow students to work with real-world data and apply statistical forecasting techniques to solve business problems. The proposed assignment will enable students to practice problem-solving skills, analytical thinking, and data visualization techniques. Infusing NOAA datasets into BUDA 530 will achieve the course objectives, foster innovation and problem-solving skills in students, and prepare them to analyze and summarize large-scale data to facilitate making informed business decisions.

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M E M O R A N D U M

To: Cloud Analytics Faculty Fellowship Selection Committee

From: A Graham Peace, Ph.D.
Chair, Department of Management Information Systems

Date: March 24, 2023

Re: Cloud Analytics Faculty Fellowship

Dear Cloud Analytics Faculty Fellowship Selection Committee,

I am very pleased to write this letter of support for Joshua Meadows, who has applied for the Cloud Analytics Faculty Fellowship. Joshua is a very deserving recipient of this award and I strongly endorse his application.

Joshua currently serves as a Service Assistant Professor in the Department of Management Information Systems, and as Director of Data Driven West Virginia (DDWV). In this role, he is an integral part of our data analytics programs. DDWV provides students with experiential learning opportunities that also benefit our external partners, thus aiding the state in multiple ways. As a recipient of this fellowship, Joshua would be able to expand opportunities for our students through the integration of the NOAA datasets into his courses. As Joshua has noted, the goals of the fellowship program strongly align with his own personal and professional goals, and the goals of our programs.

Joshua has been an exceptional addition to our department and has quickly established himself as a tremendous resource for our programs and students. He has achieved superb results with limited resources. I have no doubt that he would use this fellowship to it's maximum potential. He would also have the full support of the department and our administration.

I honestly cannot think of a better recipient, and I sincerely hope that Joshua is provided with this opportunity. He is the perfect candidate for a fellowship such as this, and it would benefit both Joshua and our students greatly.

If I can be of any further help, please do not hesitate to contact me at your convenience.

A. Graham Peace
Chair, Department of Management Information Systems

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BUSINESS AND ECONOMICS

March 21, 2023

Dear Selection Committee,

I am writing to support Joshua Meadows, a service assistant professor in the Management Information System department at West Virginia University, applying for the Cloud Analytics Faculty Fellowship. I strongly endorse his application for this fellowship, which aims to develop curated classroom experiences to expose students to working with NOAA datasets associated with the NODD initiative and cloud service providers to catalyze innovation and problem-solving.

If selected, Joshua has committed to delivering the course to the described audience in the 2023-2024 academic year. He will fulfill this commitment with the utmost dedication and professionalism as he is a highly motivated and competent educator.

Moreover, Joshua has demonstrated an exceptional ability to collaborate with colleagues, students, and external partners. As the director of the outreach center called Data Driven WV, he has worked tirelessly to teach students technology concepts by partnering them with a community organization with a need and having them solve a real-world problem. This approach to experiential learning has been incredibly innovative in pedagogy and has received recognition for its impact on students and the community.

In conclusion, I strongly recommend Joshua Meadows for the Cloud Analytics Faculty Fellowship. He has the skills, expertise, and passion necessary to deliver a truly transformative learning experience for our students and advance the fellowship's goals. Thank you for considering this application.

Sincerely,

Josh Hall
Milan Puskar Dean
John Chambers College of Business and Economics
West Virginia University