DUNG NGUYEN
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EDUCATION

- **PhD in Forest Science** (2015). Colorado State University, Fort Collins, Colorado, USA.
- **MS in Forest Science** (2012). Colorado State University, Fort Collins, Colorado, USA.

ACADEMIC POSITIONS

- **Research Scientist II** (2023-present). Department of Forest & Rangeland Stewardship, Colorado State University, US.
- **Postdoctoral Fellow** (2022-2023). Department of Forest & Rangeland Stewardship, Colorado State University, US.
- **Lecturer** (2020-2021). Faculty of Business and Economics, Phenikaa University, Vietnam.
- **Postdoctoral Fellow** (2016-2018). Department of Forest & Rangeland Stewardship, Colorado State University, US.
- **Lecturer** (2016). Silviculture Department, Vietnam National University of Forestry, Vietnam.
- **Graduate Research Assistant** (2013-2015). Department of Forest & Rangeland Stewardship, Colorado State University, US.
- **Graduate Teaching Assistant** (2008, 2011, 2013). Department of Forest & Rangeland Stewardship, Colorado State University, US.
- **Research Affiliate** (2009-2012). USDA Forest Service Research Station in Fort Collins, Colorado, US.

HONORS & AWARDS

- Outstanding academic recognition (Issuer: Golden International Honor Society, 2011).
- Vietnamese Government **Full Scholarship for PhD** Study at Colorado State University (2009).
- Vietnamese Government **Full Scholarship for MS** Study at Colorado State University (2007).
- Graduation with distinction (**University's Top 1**) with the excelent academic recognition for the 2003-2007 trainning period (Issuer: Vietnam National University of Forestry, 2007).
- **First Prize** in the Third National Conference on Science and Technology for University and College Students of Agriculture-Forestry-Pisciculture (Issuer: Ministry of Education and Training of Vietnam, 2007).
- **First Prize** in the National Competition for Student Researchers across all disciplines (Issuer: Ministry of Education and Training of Vietnam, 2005).
- **First Prize** in the Vietnam for Technology National Competition - VIFOTEC (Issuer: Ministry of Education and Training of Vietnam, 2005).
- **Youth Creative Medal** (Issuer: Ministry of Education and Training of Vietnam, 2005).

CONTRACTS & GRANTS

- Assessing fuel break effectiveness using an empirical spatial fire planning model in the context of suppression operations (2020-2024). Interdisciplinary. Joint Fire Science. Participant with Erin Belval (PI), Yu Wei (Co-PI), Benjamin Gannon, Christopher O'Connor, Christopher Dunn, Dave Calkin, Matthew Thompson, Jessica Haas. **$500K**.
- Develop a decision tool to support USFS National Forest planning. Disciplinary (2016-2021). USFS Region I. Participant with Yu Wei (PI), Eric Henderson, David Anderson. **$280K**.

PUBLICATIONS

REFEREED PAPERS

- **Nguyen, D.**, E. Belval, Y. Wei, K. Short, and D. Calkin. Dataset of United States Incident Management Situation Reports from 2007 to 2021. Sci Data 11, 23 (2023). https://doi.org/10.1038/s41597-023-02876-8
- **Nguyen, D.**, E. Henderson, and Y. Wei. PRISM: a decision support system for forest planning. Environmental Modelling and Software, 155 (2022). https://doi.org/10.1016/j.envsoft.2022.105515
- **Nguyen, D.** and Wei, Y. A Multistage Stochastic Program to Optimize Prescribed Burning Locations Using Random Fire Samples. Forests, 13(6), p.930 (2022). https://doi.org/10.3390/f13060930
- Wei, Y., M. Bevers, **D. Nguyen**, and E. Belval. A Spatial Stochastic Programming Model for Timber and Core Area Management Under Risk of Fires. Forest Science 60, no. 1 (2014): 85-96. https://doi.org/10.5849/forsci.12-124

DESKTOP APPLICATIONS

- **Nguyen, Dung**. IMSR-Tool: A desktop application to mine United States Incident Management Situation Reports (1.05). zenodo. https://doi.org/10.5281/zenodo.8406263
- **Nguyen, D.**, E. Henderson, Y. Wei, and D. Anderson. PRISM: a decision support system for forest planning. https://bitbucket.org/Prism-Members/prism/src/master

WEB APPLICATION

- **Nguyen, Dung**. Optimal fuel-break locations in Southern California under different scenarios. https://thumit.users.earthengine.app/view/landscape-fuelbreak-prioritization

DATA PRODUCT

- **Nguyen, D.**, E. Belval, Y. Wei, K. Short, and D. Calkin. Dataset of United States Incident Management Situation Reports, 2007-2021. figshare. Dataset. https://doi.org/10.6084/m9.figshare.24243184.v3

WORKING PAPERS

- **Nguyen, D.**, Y. Wei, E. Belval, M. Thompson, B. Gannon, J. Young, C. O'Connor, and D. Calkin. An optimization model to prioritize fuel treatments within a landscape fuel break network.
- **Nguyen, D.**, Y. Wei, E. Belval, and D. Calkin. A rule-based analysis to identify driving factors for wildfire prioritization in California.

PRESENTATIONS

- **Nguyen, D.**, Y. Wei, E. Belval, M. Thompson, B. Gannon, J. Young, and D. Calkin. An optimization framework for landscape fuel-break prioritization in Southern California. 10th International Fire Ecology and Management Congress. 4-8 December 2023. Monterey, California, USA.
- **Nguyen, D.**, Y. Wei, and E. Henderson. PRISM: A Decision Support System for Adaptive Forest Management and Planning. SAF2023 National Convention. 25-28 October 2023. Sacramento, California, USA.
- **Nguyen, D.**, Y. Wei, E. Belval, M. Thompson, B. Gannon, J. Young, and D. Calkin. A scalable optimization model to prioritize landscape fuel-break investment for effective wildfire management. 2023 INFORMS Annual Meeting. 15-18 October 2023. Phoenix, Arizona, USA.
- **Nguyen, D.**, Y. Wei, and E. Henderson. PRISM: An Analytical Tool for Forest Plan Development. ICFSM 2023: International Conference on Forest Science and Management. 24-25 April 2023. New York, USA.
- **Nguyen, D.**, E. Henderson, and Y. Wei. PRISM: A new management scheduling model for United States National Forest planning. The 19th Symposium on Systems Analysis in Forest Resources. 24-27 July 2022. Estes Park, Colorado, USA.
- Wei, Y., **D. Nguyen**, B. Gannon, E. Belval, M. Thompson, J. Young, D. Calkin, and C. Oconnor. Developing a fuelbreak prioritization model using stochastic fire simulation results. The 19th Symposium on Systems Analysis in Forest Resources. 24-27 July 2022. Estes Park, Colorado, USA.
- Wei, Y., E. Henderson, and **D. Nguyen**. A Joint Effort to Develop PRISM for Strategic Forest Planning. USFS Annual Analyst meeting, Oct 22-24, 2019. Fort Collins, Colorado, USA.
- Anderson, D., **D. Nguyen**, E. Henderson, and Y. Wei. PRISM - Harvest Scheduling using the 2012 Planning Rule. INFORMS annual meeting, November 04-07, 2018. Phoenix, Arizona, USA.
- **Nguyen, D.** and Y. Wei. A multistage stochastic program with recourse for scheduling prescribed burning to mitigate watershed fire risk. 2017 University Council on Water Resources and National Institutes for Water Resources Annual Conference - Water in a changing environment. June 13-15, 2017. Fort Collins, Colorado, USA.
- **Nguyen, D.** and Y. Wei. Develop a multistage stochastic program with recourse for scheduling prescribed burning based fuel treatments with consideration of future wildland fires and fire suppressions. 6th International Fire Ecology and Management Congress. Nov 16-20, 2015. San Antonio, Texas, USA.
- Wei, Y., M. Bevers, and **D. Nguyen**. Using Stochastic Programming in Harvest Scheduling and Core Area Management. The 14th Symposium for Systems Analysis in Forest Resources. March 8-11, 2011. Maitencillo, Chile.
- Wei, Y., M. Bevers, and **D. Nguyen**, D. A stochastic programming approach for forest management with natural disturbances. INFORMS 2010 Annual Meeting. Nov 7-10, 2010. Austin, Texas, USA.
- **Nguyen, D.**, M. Bevers, and Y. Wei. A stochastic programming approach to forest management with natural disturbances. Society of Applied Mathematics 2010 Conferences on the Life Science. Pittsburg, Pennsylvania, USA.

- **Nguyen, D.**, M. Bevers, and Y. Wei. Developing a stochastic programming model for timber and core area management. The 13th symposium on system analysis in forest resources, May 26-29, 2009. Charleston, South Carolina, USA.

PROFESSIONAL ASSOCIATIONS

- **Deputy Head** (2019-present). Department of Science, Technology and International Cooperation, Vietnam Central Association of Forest Science and Technology (VIFA). Task: providing consultancy services for VIFA to support interdisciplinary research and international cooperation in forestry.

SERVICE

- **Reviewer** for Journal (ISSN). Risk Analysis (0272-4332). Operations Research Perspectives (2214-7160). International Journal of Wildland Fire (1448-5516). Fire (2571-6255). Forests (1999-4907). Canadian Journal of Forest Research (0045-5067). Sustainability (2071-1050). Atmosphere (2073-4433). Applied Sciences (2076-3417).