

# Wend Yam Donald Davy Ouedraogo

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Github: github.com/dondavy

## EDUCATION

- **Université de Sherbrooke** Sherbrooke, Canada  
• *Doctorate, Doctor of Philosophy Ph.D., Computer Science - Bioinformatics* 2020/09 - 2024/08  
*Thesis: Inference of homology relationships between transcripts and construction of transcript phylogenies: models and algorithms*  
*Supervisor: Aida Ouangraoua*  
*Mention: Excellent*
- **Université de Sherbrooke** Sherbrooke, Canada  
• *Master's Thesis, Masters of Science M.Sc, Computer Science - Bioinformatics; GPA: 4.2/4.3* 2019/09 - 2020/08  
*Fast track to PhD*  
*Supervisor: Aida Ouangraoua*
- **National Higher School of Telecommunications and ICT (ENSTTIC)** Oran, Algeria  
• *Engineer's degree, Masters of Engineering M.Eng., Telecommunication Systems* 2014/09 - 2019/07  
*Graduated with distinction*

## EXPERIENCE

- **Université de Sherbrooke** Sherbrooke, Canada  
• *Postdoctoral researcher (Full-time)* 2024/10 - 2025/03
- **Université de Sherbrooke** Sherbrooke, Canada  
• *Teaching assistant (Part-time, Contractual)* 2019/09 - 2023/08
  - **Courses:** IFT339-Data Structures (Fall 2019; Winter 2021; Winter 2022); IFT436-Algorithms and Data Structures (Summer 2021; Summer 2023); IFT870-BIN710-Algorithms for Bioinformatics (Winter 2023).
- **Hasnaoui Telecom Algérie (HTA)** Oran, Algeria  
• *Internship (Full-time)* 2019/02 - 2019/05

## SKILLS SUMMARY

- **Languages:** Python, C++, JavaScript, SQL, Bash
- **Frameworks:** React, NextJS, Scikit, NodeJS
- **Tools:** GIT, PostgreSQL
- **Platforms:** Linux, Windows
- **Soft Skills:** Problem-solving, Adaptability, Teamwork, Openness to criticism

## ARTICLES

- **Journal (accepted): TranscriptDB: A transcript-centric database to study transcript conservation and evolution.:** Ouedraogo, Wend Yam DD, and Aida Ouangraoua. **To appear.**
- **Journal (published): Orthology and Paralogy Relationships at Transcript Level:** Ouedraogo, Wend Yam DD, and Aida Ouangraoua. "Orthology and Paralogy Relationships at Transcript Level." *Journal of Computational Biology* 31.4 (2024): 277-293. <https://doi.org/10.1089/cmb.2023.0400>
- **Journal (published): SimSpliceEvol2: alternative splicing-aware simulation of biological sequence evolution and transcript phylogenies:** Ouedraogo, Wend Yam DD, and Aida Ouangraoua. "SimSpliceEvol2: alternative splicing-aware simulation of biological sequence evolution and transcript phylogenies." *BMC bioinformatics* 25.1 (2024): 1-13. <https://doi.org/10.1186/s12859-024-05853-z>
- **Journal (submitted to iScience): unveiling the true major translational output of the PIDD1 gene:** Comtois, Frédérick, Jean-François Jacques, Lenna Métayer, Ouedraogo Wend Yam DD, Aida Ouangraoua, Jean-Bernard Denault, and Xavier Roucou. "Non-canonical altPIDD1 protein: unveiling the true major translational output of the PIDD1 gene." *bioRxiv* (2024): 2024-06. <https://doi.org/10.1101/2024.06.27.601030>
- **Journal: From pairwise to multiple spliced alignment:** Safa Jammali, Abigaïl Djossou, Ouedraogo, Wend Yam DD, Yannis Nevers, Ibrahim Chegrane, Aida Ouangraoua, From pairwise to multiple spliced alignment, *Bioinformatics Advances*, Volume 2, Issue 1, 2022, vbab044, <https://doi.org/10.1093/bioadv/vbab044>

## CONFERENCE PAPERS

- **Article: Inferring Transcript Phylogenies from Transcript Ortholog Clusters:** Ouedraogo, Wend Yam DD, and Aida Ouangraoua. "Inferring Transcript Phylogenies from Transcript Ortholog Clusters." In *RECOMB International Workshop on Comparative Genomics*, pp. 47-68. Cham: Springer Nature Switzerland, 2024. [https://doi.org/10.1007/978-3-031-58072-7\\_3](https://doi.org/10.1007/978-3-031-58072-7_3)
- **Article: Inferring clusters of orthologous and paralogous transcripts:** Ouedraogo, Wend Yam DD and Aida Ouangraoua. "Inferring clusters of orthologous and paralogous transcripts." In *RECOMB International Workshop on Comparative Genomics*, pp. 19-34. Cham: Springer Nature Switzerland, 2023. [https://doi.org/10.1007/978-3-031-36911-7\\_2](https://doi.org/10.1007/978-3-031-36911-7_2)

## TALKS AND POSTERS

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- **Talk ISMB 2024: Inferring transcript phylogenies based on precomputed groups of conserved transcripts:**  
Ouedraogo, Wend Yam DD, ISMB 2024, EvolCompGen session, (July 2024), Montreal, Canada.
- **Talk Quest for orthologs (QFO) 8, 2024: Inferring Transcript Ortholog Clusters and Transcript Phylogenies:**  
Ouedraogo, Wend Yam DD, Quest For Orthologs (QFO) 8, Protein domains & RNA session, (July 2024), Montreal, Canada
- **Poster GLBIO 2024: Inferring Transcript Phylogenies from Transcript Ortholog Clusters:**  
Ouedraogo, Wend Yam DD, GLBIO 2024, (May 2024), Pittsburgh, Pennsylvania, United States.
- **Talk RECOMB-CG 2024: Inferring Transcript Phylogenies from Transcript Ortholog Clusters:**  
Ouedraogo, Wend Yam DD, RECOMB-CG 2024, (April 2024), Cambridge, Massachusetts, United States.
- **Talk GLBIO 2023: Exploring transcript conservation and evolution with TranscriptDB:**  
Ouedraogo, Wend Yam DD, GLBIO 2023, (May 2023), Montreal, Canada
- **Talk RECOMB-CG 2023: Inferring clusters of orthologous and paralogous transcripts:**  
Ouedraogo, Wend Yam DD, RECOMB-CG 2023, (April 2023), Istanbul, Turkey.
- **Talk ISMB 2022 and Poster: TranscriptDB : A transcript-centric database to study transcript conservation and evolution within gene trees:** Ouedraogo, Wend Yam DD, ISMB 2022, (July 2022), Madison, Wisconsin, United States (Online)
- **Poster ISMB 2020: Splicing-structure-based selection of protein isoforms improves the accuracy of gene tree reconstruction.:** Ouedraogo, Wend Yam DD, ISMB 2020, (July 2020) (Online edition)

## FUNDINGS

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- R3D Conseil Inc. Scholarship (2000\$) - 2022/03 (Based on merit)
- Orange Foundation Scholarship - 2019/11 (Based on merit)
- Research Scholarship, CoBIUS - 2019/08 - present

## VOLUNTEER EXPERIENCE

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| • <b>Student Association of Researchers in Sciences (RECSUS) at UdeS</b><br><i>Representative member of the students from the Computer Science department</i> | Sherbrooke, Canada<br><i>January 2022 - April 2023</i>       |
| • <b>Discussion group on racial and cultural inequalities at UdeS</b><br><i>Group Member</i>  | Sherbrooke, Canada<br><i>September 2020 - September 2021</i> |
| • <b>AIESEC in Sherbrooke</b><br><i>Member of the B2C section</i>   | Sherbrooke, Canada<br><i>August 2020 - July 2021</i>         |
| • <b>FasoEsport Association for the Promotion of Electronic Sports</b><br><i>Executive Member</i>   | Ouagadougou, Burkina Faso<br><i>April 2020 - present</i>     |
| • <b>FasOtaku Association for Burkina Faso-Japan Cultural Relations</b><br><i>Co-founder and Executive Advisor</i>  | Ouagadougou, Burkina Faso<br><i>February 2020 - present</i>  |
| • <b>Association of Foreign Students of ENSTTIC (ex. INTTIC)</b><br><i>Treasurer of the association</i>   | Oran, Algeria<br><i>October 2016 - October 2027</i>          |
| • <b>Union of Burkinabé Students and Interns in Algeria (UESBA)</b><br><i>Member</i>  | Alger, Algeria<br><i>October 2014 - July 2019</i>            |

## REFERENCES

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- Professor Aida Ouangraoua  
*thesis supervisor*  
*Université de Sherbrooke*  
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