Jon Wick

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Summary

I am an undergraduate researcher at Western Washington University interested in combining my understanding of biology and computer science to advance the body of knowledge of biological phenomina. Currently, I am using computational methods to advance the understanding of small RNAs in Tetrahymena thermophila which are responsible for maintaining genome integrity as a part of the Lee lab.

Education

Western Washington University, BS in Molecular and Cellular Biology — Sept 2023 - present

- GPA: 3.77/4.0
- **Upper division Coursework:** Advanced Cell and Molec Lab, Genomic Data Analysis, Cellular and Molecular Biology, Biostatistics, Cell and Molec Lab, Genetics, Organic Chemistry series, Evolution.

Research Experience

Undergraduate Researcher, WWU – Bellingham, WA — June 2024 - present

- Investigate roles of sRNAs in an RNAi pathway responsible for maintaining genome integrity in *Tetrahymena thermophila*.
- Developed and used tools for genomic data analysis to understand sRNA biogenesis and effector loci.
- Performed Western Blots, maintained cells, and performed literature reviews to progress the goals of the lab.

Computing Research, Independent Research – Tacoma, WA — February 2023- May 2024

- Published Paper for ACM SIGSCE conference about education and mentorship in extracurricular robotics.
- Formulated research questions for interviews and surveys.
- Conducted interviews and distributed surveys.
- Analyzed interviews and survey responses to extrapolate qualitative data.

Computational Experience

Programming Lead, SOTAbots FIRST Team 2557 — September 2019 - June 2023

- Developed Code used in the semi-finals of the 2022 world championship of FIRST Robotics Competition.
- Taught students to program in Java and robot code using industry-standard design patterns.
- Coordinated with other leads on the team to develop a robot, build community, perform local outreach, and obtain funding.

Publications

Understanding the Leadership Structure and Mentoring Model of an Extracurricular Robotics Team: Key Findings from a Case Study — March 2024

Hitender Oswal, ***Jon Wick***, Seth Tandon, Ashley Brewster, Sushil K Oswal

DOI: 10.1145/3626253.3635603

Relevant Courses

Advanced Cell and Molec Lab – BIOL 487, WWU — Spring 2025

- Currently investigating the role of an E2 ubiquitin ligase, ubc-6, in C. elegans to further the research of the Dahlberg Lab at WWU.
- Utilized Western Blots, Reverse Transcriptase PCR, and PCR.
- Collect literature to improve understanding of ubc-6 in the context of other model organisms.
- Maintaining accurate lab notebook using Benchling.

Posters

Remapping previously sequenced 23-24 nucleotide sRNAs to the 2020 Tetrahymena thermophila Genome
WWU SURP poster session, September 2024.
Jon Wick, Noah Haight, Suzanne Lee, Dan Pollard

Leadership Structure and Mentoring Model of an Extracurricular Robotics Team
ACM SIGSCE conference, March 2024.
Hitender Oswal, **Jon Wick**, Seth Tandon, Ashley Brewster, Sushil K. Oswal

Awards

SURP award 2025
Western Washington University, Dept of Biology

Technologies

Biology Tools: Genomic Data Analysis, Western Blot, PCR, Reverse Transcriptase PCR

Programming Languages: C++, C, Java, Python, Nix, R

Technologies: CLI, Benchling, Microsoft Office Server, Linux, Nixos, ImageJ