Nada Stojanovic

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EDUCATION

Aug 2021 - May 2025	Lehigh University, Bethlehem, PA, United States B.Sc. Computer Science GPA: 3.93 / 4.00, Dean's List for 8 semesters
Aug 2019 - Jul 2021	Bootham School, York, UK A-levels: Maths (A*), Further Maths (A*), Physics (A*), Psychology (A*), EPQ (A*)

RELEVANT COURSES

Calculus, Linear Algebra, Probability, Statistics, Theory of Artificial Intelligence, Theory of Computation, Fundamentals of Biomedical Signals, Data Science, Design and Analysis of Algorithms, Physics, Chemistry

RESEARCH EXPERIENCE

Nov 2023 - Present
Neural Engineering Lab, Lehigh University
Supervisor: Dr. Yevgeny Berdichevsky

- Using MATLAB and Python to analyze 2-photon calcium imaging data recorded in the primary visual cortex of awake mice undergoing visual stimulation.
- Developing a classification model that successfully decodes temporal properties of visual stimuli (i.e. the speed of drifting gratings) based on concurrent circuit-level neuronal activity from soma.
- Performing neuropil signal extraction to identify high-information, non-somatic regions and features based on initial results indicating high classification accuracy when using signal from a 10μm annulus around the cellular ROI.

Dec 2023 - May 2025
Brain Imaging and Computation Lab, Lehigh University
Supervisor: Dr. Yu Zhang

- Developing a deep learning model in Python to analyze longitudinal fMRI data and disentangle neurobiological variation specific to Alzheimer's patients from the variation shared across both the typical and the pathological group.
- Incorporating age into the model's loss function to discern between an individual's chronological and biological brain age, with the aim of establishing healthy versus pathological aging trajectories.

Feb 2024 - May 2025
Martindale Student Associates Program, Lehigh University

- Selected as one of twelve students to participate in a fully funded research trip to Taiwan in May 2024, followed by two semesters of independent study of current issues in Taiwan.
- Currently preparing a publication on the evolution of Taiwanese film as a political tool and a medium for social activism.

Jun 2023 - Aug 2023
Institute of Production Systems, TU Dortmund

- Developed a time-series-based supervised anomaly detection machine learning model to automate error classification in automated screwdriving machinery.
- Designed and conducted a research experiment with artificially induced anomalies to examine the performance of the classifier.

Teaching and Grading Experience

Jan 2022 - May 2025	Head Teaching Assistant for Applied Engineering Computer Methods (ENGR010)
Jan 2024 - May 2025	Grader for Introduction to Data Science (CSE160)
Aug 2022 - Dec 2023	Grader for Introduction to Programming (CSE007)

Projects

Jan 2024 - Dec 2024 — TrackTB: Tuberculosis Treatment Adherence Monitoring
Advisor: Dr. Khanjan Mehta

- Developing a web dashboard for doctors to easily access critical patient adherence data.
- Facilitating real-time monitoring of adverse drug reactions for timely interventions.
- Conducted beta testing in tuberculosis clinics in the Philippines to gather user feedback.

Jan 2022 - Dec 2022 — Save Tuba: Mobile App for Sustainability Education
Advisor: Dr. Khanjan Mehta

- Led the development of a gamified app for primary school students in Kazakhstan.
- Created a web interface for teachers to customize lesson plans and track student progress.
- Conducted focus groups with teachers and students in Kazakhstan.

Publications

Ferdous, Z. I., **Stojanovic, N.** and Y. Berdichevsky. (2025) Temporal Information Encoding in Isolated Cortical Networks. *Manuscript under revision for Cerebral Cortex.*

Lachman, T.A., Tyshchenko, D., Poole, A., **Stojanovic, N.**, Hassan, S., Dawdy, A.J., Santana, A.F., Tauman, D., Aitinzarova, A., Muratbekova, A., Latypov, A., Tuganov, A., Serikbekova, A. and Mehta, K. (2023). Accelerating the Development of a Gamified Educational App Through Early Stakeholder Engagement. IEEE Xplore.

Santana, A.F., Lachman, T.A., Tyshchenko, D., Hassan, S., Dawdy, A.J., Poole, A., **Stojanovic, N.**, Gomanie, N.N., Abramova, E., Kabetov, T., Kabiyeva, K., Kolossova, Y., Kurbanova, R., Kadyrbulat, K., Muratbekova, A. and Mehta, K. (2022). Save Tuba: A Gamified App for Children to Explore Environmental Issues and Develop Sustainable Behaviors. IEEE Xplore.

Conference Proceedings

IEEE Global Humanitarian Technology Conference - Santa Clara University, CA (2022). Oral Presentation.

Scholarships and Awards

2024 — Rhodes Scholarship Nominee, Lehigh University

2023 — Ruhr Fellowship, University Alliance Ruhr
One of twelve recipients selected nationwide for a German language and cultural study program, followed by a research fellowship at Technical University Dortmund.

2022 — Spiegel Merit Award, Lehigh University
Recognised as the Campus Athletics employee who best exemplifies dependability, concern for others, and commitment to providing an enjoyable experience for all fitness participants.

2019 — Full Student Scholarship, HMC Projects
One of five Montenegrin recipients selected for an award covering tuition, room and board for the duration of 6th form at a private boarding school in the UK.

Activities

Engagements:	Program Assistant at the Center for Gender Equity, Web Developer for the International Students Literary Magazine, French Language Tutor, Data Analysis and Tracking Manager at the University Gym, Student Ambassador at the EducationUSA American Corner in Montenegro
Hobbies:	Cycling, reading, poetry, hiking, painting, language learning