Ana Sofía M. Uzsoy

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EXPERIENCE

GOOGLE | Software Engineering Intern
May 2020 – July 2020 | Mountain View, CA (remote)

- Worked on TensorFlow and Kaggle teams.
- Created natural language processing (NLP) machine learning code examples using TensorFlow 2 for Kaggle in Python and R.
- Led launch of new NLP-focused Kaggle competition.

NASA LANGLEY RESEARCH CENTER | Intern
June 2019 – August 2019 | Hampton, VA

- Worked on SAGE III ISS (Stratospheric Aerosol & Gas Experiment III on the International Space Station).
- Identified cloud interference in spectroscopic atmospheric measurements using machine learning in Python (sklearn and PyTorch).
- Shadowed NASA employees in mission operations and software engineering.

UNIVERSITY OF CHICAGO | Undergraduate Researcher
June 2018 – present | Chicago, IL

- Analyzed data from *Kepler* and *Gaia* missions to calculate radius and mass distribution for ultra-short period exoplanets.
- First-author paper in preparation.

NC STATE UNIVERSITY | Undergraduate Researcher
August 2017 – present | Raleigh, NC

- Developed open-source computational tools to track the length of *S. pombe* (fission yeast) mitotic spindles over time using Python, Java and FIJI/ImageJ.

AWARDS

2020 Winner of McCormick Symposium, the NCSU Physics Department Annual Undergraduate Research Symposium
2020 Computer Science Department Faculty Senior Scholar, awarded to a rising senior based on academic excellence, intellectual breadth, and depth of character
2019 Barry M. Goldwater Scholarship, a national scholarship awarded to promising undergraduates who plan to pursue a research career in engineering, mathematics, or the natural sciences
2018 Freshman Physics Outstanding Academic Achievement Award
2017 Park Scholarship, a full-ride merit scholarship to NC State awarded on the basis of outstanding accomplishments and potential in scholarship, leadership, character, and service
2017 Finalist, Intel International Science & Engineering Fair
2017 2nd Place, Beijing Youth Science Creation Competition

PUBLICATIONS

Uzsoy, A.S., Zareiesfandabadi, P., Jennings, J., Kemper, A.F. and Elting, M. Automated tracking of *S.pombe* spindle elongation dynamics. bioRxiv, 2020. doi: https://doi.org/10.1101/2020.10.09.333765

Uzsoy, A.S., Price, M. and Rogers, L. (2020). The radius and mass distribution of ultra-short period planets. (in prep)

EDUCATION

NC STATE UNIVERSITY
B.S. Computer Science
B.S. Physics
Minors: Mathematics, Oboe performance
Expected May 2021 | Raleigh, NC
Dean's List (All Semesters)
Cum. GPA: 4.0 / 4.0

SKILLS

PROGRAMMING
Python • C/C++ • Java • R
MATLAB • LaTeX • HTML/CSS
Assembly • AngularJS

TECHNOLOGY
Git/Github • UNIX • JUnit • Bash
FIJI/ImageJ • Maven • LabView

MISCELLANEOUS
Spanish (native speaker) • Soldering
Circuit wiring • Bacterial culture

COURSEWORK

Data Structures
Discrete Mathematics
Operating Systems
Software Engineering
Ordinary/Partial Differential Equations
Probability & Statistics
Classical Mechanics
Electricity & Magnetism
Quantum Physics
Thermal Physics
Astrophysics

EXTRACURRICULARS

President, NCSU Women in Physics
NCSU Wind Ensemble
NCSU College of Sciences Student Ambassador
Service Raleigh Web Committee
NCSU Women in Computer Science

LINKS

GitHub;// **asmuzsoy**
LinkedIn:// **anasofiauzsoy**
Kaggle:// **anasofiauzsoy**

PRESENTATIONS

Uzsoy, A.S., Zareiesfandabadi, P., Jennings, J., Kemper, A.F. and Elting, M. Automated tracking of S.pombe spindle elongation dynamics. Virtual oral presentation presented at: NCSU Physics Department McCormick Symposium; 2020 May 6, Raleigh, NC.

Uzsoy, A.S., Price, M. and Rogers, L. The radius and mass distribution of ultra-short period planets. Poster presented at: National Conference for Undergraduate Research; 2020 March 26-28; Bozeman, MT†.

Uzsoy, A.S., Price, M. and Rogers, L. The radius and mass distribution of ultra-short period planets. Poster presented at: 235th American Astronomical Society Meeting; 2020 January 4-8; Honolulu, HI.

Uzsoy, A.S., Kemper, A.F., and Elting, M. Automated tracking of S. pombe spindle elongation dynamics. Poster presented at: 2019 American Society for Cell Biology Meeting; 2019 December 7-11; Washington, DC

Uzsoy, A.S., Kemper, A.F., and Elting M. Automated tracking of S. pombe spindle elongation dynamics. Poster presented at: Triangle Cytoskeleton Meeting; 2019 September 30; Saxapahaw, NC

Uzsoy, A.S. Machine Learning for Aerosol/Cloud Determination. Poster presented at: NASA Langley NIFS Intern Poster Session; 2019 August 1; Hampton, VA

Uzsoy, A.S., Zareisfandabadi, P., and Elting, M. Investigation of S. pombe mitotic spindle mechanics with molecular perturbation and computational techniques. Poster presented at: NCSU Spring Undergraduate Research Symposium; 2019 April 24; Raleigh, NC

Uzsoy, A.S., Zareisfandabadi, P., and Elting, M.Investigation of S. pombe mitotic spindle mechanics with molecular perturbation and computational techniques. Poster presented at: NCSU Physics Department McCormick Symposium; 2019 April 22; Raleigh, NC

Zareisfandabadi, P.*, Uzsoy, A.S.*, and Elting, M. (*contributed equally) Probing mitotic spindle mechanics in S. pombe via perturbation of microtubule crosslinkers and targeted laser ablation. Poster presented at: Triangle Cytoskeleton Meeting; 2018 September 24; Saxapahaw, NC

Uzsoy, A.S. and Rogers, L. The radius and mass distribution of ultra-short period planets. Oral presentation presented at: University of Chicago STEM Research Symposium; 2018 August 1; Chicago, IL.

Uzsoy, A.S. and Rogers, L. The radius and mass distribution of ultra-short period planets. Oral presentation presented at: Leadership Alliance National Symposium; 2018 July 27-29; Hartford, CT.

Uzsoy, A.S. Drastic conditions call for drastic measures: the viability of terrestrial extremophiles in simulated Martian UV radiation. Poster presented at: Intel International Science & Engineering Fair; 2017 May 14-19; Los Angeles, CA

Uzsoy, A.S. Drastic conditions call for drastic measures: the viability of terrestrial extremophiles in simulated Martian UV radiation. Oral presentation presented at: North Carolina School of Science and Mathematics Research Symposium; 2017 April 26; Durham, NC

Uzsoy, A.S. Drastic conditions call for drastic measures: the viability of terrestrial extremophiles in simulated Martian UV radiation. Poster presented at: 37th Beijing Youth Science Creation Competition; 2017 March 23-26; Beijing, China

† planned, but canceled due to COVID-19.