

# Alexandra “Sasha” Zelenski

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## Skills

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**Programming Languages:** Python, Java, Javascript, C/C++, MATLAB

**Tools and Frameworks:** MySQL, MongoDB, Nomad, Docker, Jenkins, Postman, LaTeX, Qualtrics API

**Languages:** English (native), Ukrainian (proficient), Spanish (basic), Russian (basic)

## Experience

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**Software Engineer I**      **06/2022 - 04/2024**      *Qualtrics*      *Seattle, WA*

- Designed and built solutions for (travelers: bulk ED update, workflow failure reporting, workflow template)
- Mention how workday catalog v2 (and workflow template) will save costs
- Course evals teacher email filtering feature
- Line about something that's not the projects I did?

**Software Engineering Intern**      **05/2021 - 08/2021**      *Collins Aerospace*      *Cedar Rapids, IA*

- Collaborated with two other interns to architect and design new layered framework for PTS-200 power supply testing system
- Initiated conversion from Visual Basic 6 to C#, saving up to \$3.60M over next 15 years
- Increased software compatibility between Test and Design engineering with interns, engineers and technicians

**Undergraduate Research Assistant**      **05/2019 - 05/2022**      *UI Technology Institute, UI Hydroscience and Engineering*      *Iowa City, IA*

- Developed algorithm to analyze oil weathering that can be applied to reduce necessity and usage of dispersants in oil spill cleanup by linking petroleum compound signatures across samples and filtering target vs non-target peaks
- Co-authored paper for IEEE Oceans Conference and future publication
- Investigated statistical and machine learning methods for predicting pH and ORP sensor readings from chlorination system in Nicaragua
- Built multi-step LSTM network to forecast sensor outputs, potentially enabling community members to more regularly maintain chlorination system

## Education

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**B.S.E. Computer Science and Engineering, Mathematics Minor**      **08/2018 - 05/2022**      *University of Iowa*      *Iowa City, IA* - Engineering and University Honors, GPA 3.51/4.00 - As teaching assistant for Linear Systems II, led course labs and conducted office hours to solidify students' understanding of digital signal processing

## Projects

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### Senior Capstone Project

**11/2020 - 05/2021**

*University of Iowa,  
sponsored by Collins  
Aerospace*

*Iowa City, IA*

- Partnered with two other UI students to design machine learning tool increasing safety among fatigued or overwhelmed pilots
- Developed and implemented eye tracking algorithm using neural network to detect pilots' gaze direction within 3 degrees of error and record fixations and saccades