

# Alexandra “Sasha” Zelenski

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## Skills

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- **Programming Languages:** Java, Python, C, C++, Javascript, Typescript
- **Databases & Frameworks:** MySQL, MongoDB, TensorFlow, React, Spring
- **Infrastructure & Cloud:** AWS, Docker, Jenkins, Terraform, Nomad, Rundeck, Prometheus
- **Tools & Practices:** Git, Splunk, Postman, Agile

## Experience

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### Software Engineer I, Engineering Services Team

06/2022 - 04/2024

*Qualtrics*

*Seattle, WA*

- Developed custom automations on distributed systems in Java and Python to extend product capabilities
- Built secure tool using Qualtrics API for bulk updating survey data via CSV upload
- Re-architected legacy customer data pipeline, cutting runtime by 50% and reducing client costs
- Automated brand health monitoring system in Python and helped update existing API to support it
- Created API endpoints in Java and implemented MySQL schema changes for Course Evaluations feature
- Supported production systems through on-call rotations

### Software Engineering Intern

05/2021 - 08/2021

*Collins Aerospace*

*Cedar Rapids, IA*

- Architected new framework for PTS-200 power supply testing system in C#
- Initiated conversion from legacy VB6 system, saving up to \$3.6M over next 15 years
- Conducted stakeholder interviews to improve system interoperability between engineering teams

### Undergraduate Research Assistant

05/2019 - 05/2022

*UI Technology Institute, UI Hydroscience and Engineering*

*Iowa City, IA*

- Developed ML and statistical models to forecast sensor readings from chlorination system in Nicaragua
- Analyzed oil weathering patterns in MATLAB, enabling reduced usage of dispersants in oil spill cleanup
- Created algorithm for linking petroleum compound signatures across Deepwater Horizon oil spill samples
- Co-authored paper on petroleum signal analysis for IEEE Oceans Conference

## Education

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### B.S.E. Computer Science and Engineering with Honors

08/2018 - 05/2022

#### Mathematics Minor

*University of Iowa*

*Iowa City, IA*

- GPA 3.51/4.00
- Teaching assistant for Linear Systems II

## Projects

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### Senior Capstone Project

11/2020 - 05/2021

*University of Iowa, sponsored by Collins Aerospace*

*Iowa City, IA*

- Designed embedded ML tool in Python with TensorFlow to increase safety among fatigued pilots
- Developed eye-tracking algorithm to monitor pilots' gaze direction in real-time within 3 degrees of error