

Alexandra “Sasha” Zelenski

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Seattle-based full-stack software engineer with a passion for aerospace and experience in system design, API development, and distributed systems. Specialized in building reliable and scalable backend services.

Skills

- **Programming Languages:** Python, Java, JavaScript/TypeScript, C/C++
- **Infrastructure & Cloud:** AWS, Docker, Jenkins, Terraform, Nomad, Rundeck, Prometheus
- **Backend & API Development:** SQL/NoSQL Databases, Spring, Postman, JWT
- **Tools & Practices:** Git, Agile

Experience

Software Engineer I, Engineering Services Team

06/2022 - 04/2024

Qualtrics

Seattle, WA

- Developed custom automations on distributed systems in Python and Java to extend product capabilities
- Created API endpoints in Java and implemented MySQL schema changes for Course Evaluations feature
- Automated brand health monitoring system in Python and helped update existing API to support it
- Built secure web-based tool using Qualtrics API for bulk survey data updates
- Re-architected legacy customer data pipeline, cutting runtime by 50% and reducing client costs
- Supported production systems built on AWS services including Lambda, S3, IAM, and CloudWatch

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 model to forecast chemical 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 for IEEE Oceans Conference and future publication

Education

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

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 with accuracy within 3 degrees