Jonah Cole Biedermann

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Work Experience

Computer Scientist, United States Air Force, Oklahoma City, OK Jul 2024 – Present

- Worked as a cleared individual on multiple defense-based projects using Java and C++
- Led development of mission-critical flight software for E-3 AWACS systems, including human-computer interface, battle management, and system monitoring modules, ensuring optimal weapon system performance

Full-stack Software Engineer, Oregon Country Fair, Eugene, OR Jan 2024 – Jun 2024

- Developed and maintained a membership database application, creating a new MariaDB database using Docker and Kubernetes to manage memberships. Also used Nest JS and Type ORM to create an API to connect with the database.
- Created a React Based front-end using Typescript with TailwindCss styling for users to update their information.

Full-stack Software Engineer, Daimler Trucks North America, Portland, OR Jun 2023 – Dec 2023

- Developed a full-stack CRUD application using Visual Studio and SQL database for managing service repair times, handling backend logic and data persistence, resulting in a significant reduction in support tickets.
- Mitigated data loss risks through the development of a full-stack application for automated dealer database backups.
- Implemented changes to integrate the Twilio API into Uptime-Pro, enhancing notification functionality seamlessly.

Full-stack Software Engineer, Mosaic.Tech, San Diego, CA Mar 2022 – Sep 2022

- Achieved a significant reduction in job cancellation times by managing asynchronous functions in C# / .NET.
- Integrated Snowflake Data Warehouse with OAuth using Angular and TypeScript, handing over 50TB of data without performance degradation.
- Used Jenkins to run custom written Cypress tests automatically as part of the continuous integration (CI) pipeline.

Data Structures / Algorithms Teaching Assistant, Oregon State University, Corvallis, OR Jun 2021–Dec 2021

- Assisted 200+ students in understanding and applying data structure and algorithm concepts.
- Designed challenging assignments that led to an 85% improvement in student coding proficiency.

Embedded Software Engineer, OPENS Lab, Corvallis, OR Jan 2021–Jun 2021

- Led a cross-functional team of 8 engineers and developers for the “WeatherChimes” project, utilizing the OPEns Lab API: Loom, to enable the seamless transmission of weather data from an Arduino Feather M0 to a low code application called MaxMSP.
- Innovatively developed an audio-visualization system tailored for MongoDB data, achieving a 3x improvement in data comprehension and analysis for users. .

Projects

Anomaly Detection for Construction Use Case Sep 2022 – Jun 2023

- Utilized state-of-the-art deep learning techniques, including YOLOv5 and masked autoencoders, to achieve a 95% accuracy rate in anomaly detection, significantly reducing false positives.

Education

Oregon State University

Bachelor of Science in Computer Science GPA: 3.83/4.00

Coursework: Artificial Intelligence, Machine Learning, Web Development, Mobile Development, Cybersecurity

Skills

Languages: C# / .NET, C++, C, Python, JavaScript/Typescript, SQL, Java, Linux

Frameworks: PyTorch, TensorFlow, CUDA, OpenCL, React.js, .NET, MongoDB, Angular, jQuery

Active Security Clearance Level: Top Secret