Connor Joseph Ludwig

Staff Software Engineer

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Staff Software Engineer at John Deere with over 6 years of experience leading teams to deliver positive business results. Launched a recurring revenue system for a Fortune 100 company. Skilled in creating and supporting high-scale cloud services and maintainable web applications. Routinely masters new technologies to meet project needs.

Professional Experience

Full-stack Staff Software Engineer, *Deere & Company, Urbandale, IA*   9/2022 to Present
- Primary engineer of novel software licensing platform enabling $10 billion in recurring revenue
- Technical lead for team of 10 cloud and embedded developers
- Launched customer support website to drastically reduce time to resolution
- Mentored 10+ junior engineers from across department on technical development and career growth
- Modernized team's engineering best practices and improved delivery velocity by 2x
- Consulted in staffing decision making for organization of 30+ engineers
- Advised 20+ business stakeholders to guide product definition

Backend & Embedded Senior Software Engineer, *Deere & Company, Urbandale, IA*   9/2021 to 9/2022
- Launched scalable system to support over 100,000 IoT devices annually across product lines
- Architected a distributed backend web service with IoT system integrations using Amazon Web Services
- Established CI/CD processes in team codebases to reduce deployment times by >30%
- Deployed serverless monitoring and logging for over 20 microservices
- Containerized 10+ codebases with Docker to improve team onboarding and deployments
- Spearheaded secure cryptographic processes to protect billions of dollars in company revenue
- Developed data pipeline for digital sales department with 10,000+ users

Full-stack Software Engineer, *Deere & Company, Moline, IL*   6/2019 to 9/2021
- Managed an enterprise data lake platform fronted with Databricks with 2,000+ customers
- Introduced data governance web app using React & Node.js for over 1,000 datasets of petabyte sizes
- Lead creation of UI/UX development standards to improve code quality and reduce defects
- Automated data discovery within enterprise data platform
- Improved cloud architecture for large-scale data ingest and egress
- Consulted over 100 customers to identify optimal data analytics solutions based on use case

Software Engineer, *Deere & Company, Moline, IL*   1/2018 to 6/2019
- Enhanced wide range of HR applications including SAP and Java apps used by 50,000+ employees

Software Engineer Intern and Part Time Student, *Deere & Company, Moline, IL*   5/2017 to 8/2017
- Established models for securing cloud data access for department of 2,000+ engineers

Software Engineer Intern, *Boston Scientific, Arden Hills, MN*   5/2015 and 5/2016
- Developed an automated suite of 20+ regression tests for mobile sales app using Selenium

Key Projects

Distributed Licensing at the Edge   10/2022 to Present

Extended embedded licensing platform from display-only to all connected controllers. Utilized hub and spoke delivery system. Included enhanced data structures to improve security and reduce file sizes.
Stack: AWS, Terraform, Step Function, Lambda, Node.js, AWS IoT, Protobuf, Linux, C++, QT, CAN

Licensing Support Website   4/2023 to 5/2023

Productionized hackathon concept to fill major business need for internal licensing support interface.
Stack: AWS, Terraform, Okta, JWTs, S3 Web Hosting, Typescript, React, Gatsby

Enterprise Data Catalog   9/2019 to 9/2021

Created modern web application to simplify data discovery, governance, and management for Deere's data lake. React site housed 1,000s of datasets with a variety of API integrations for data management.
Stack: React, Next.js, AWS, Cloudformation, EC2, Dynamo, API Gateway, Lambda

Technical Skills

JavaScript	Typescript	Java	Node.js	Jest	React	Next.js	Express.js	Git

SQL	Terraform	AWS	Drone.io	Jenkins	Python	Scala	Docker	Spark

Pandas	OpenSSL	CSS	HTML	C++	Protobuf	MongoDB

Relevant Certifications & Experience

- AWS Developer Associate (Certified)
- AWS Solutions Architect Associate (Certified)
- Python for Data Science (Certified)
- Blue River Machine Learning & AI (Certified)
- Frontend, backend, & API development
- Unit and Integration Testing
- Spotify Web APIs & Development Tools
- Expert communication & collaboration skills
- Cloud infrastructure and security practices
- Infrastructure-as-code (IAC)
- CI/CD implementation
- Containerization with Docker

Education

Iowa State University, Ames, IA   August 2013 to December 2017

Bachelor of Science - Cum Laude

Majors: Management Information Systems, Supply Chain Management
Minor: Computer Science

Leadership & Honors

SHPE National Convention Representative & Technical Evaluator ('22)

Deere Embedded Solutions "Exceptional Collaborator Award" ('22)

Databricks Data & AI Summit "Data Team Innovation Award" Winner ('21)

John Deere DeepRacer AI & ML Challenge Champion ('20)

New and Experienced Organizational Network (NEON, Young Professional ERG) Chair ('19 - '22)