Andrew C. Jensen

acjensen.com
309 397 8050
andrew.charles.jensen@gmail.com

Work Experience

2022-Present   **Amazon.com**

Selling Partner Experience, Software Engineer
Chicago, IL · AWS, Java, Typescript, Python

- Designed and released the new Amazon Seller Forums, a place for sellers to find answers and collaborate.
- Implemented features end-to-end, including: user tagging, pinning posts, personalized post recommendations, global data replication, post quoting, moderation flagging, and searching and sorting of posts.
- Provided system design and operations support across backend, frontend, and ETL pipelines.
- Made the website adaptive to provide an optimal experience on all devices from mobile to desktop.
- Optimized website performance and SEO by migrating the website to server-side rendering.
- Created a tool which identifies themes across Amazon Seller Forums via unsupervised topic modeling, and summarizes the posts in each theme with an LLM.

2017-2022   **Caterpillar, Inc.**

Engine Control and Simulation, Software Engineer
Peoria, IL · Python, Tensorflow, Matlab/Simulink

- Designed self-optimizing embedded software controls for internal combustion engines.
- Established an engine simulation and optimization library which has been adopted by 4+ applications.
- Created a library which calculates derived parameters from engine performance data.
- Led a small team to create an engine simulation web app used daily by 30+ engineers.
- Invented a novel engine control system (Patent US20220297693A1).

Engine Calibration, Software Engineer
Peoria, IL · Python, SQL

- Optimized and released 7 engine softwares to production.
- Applied machine learning to simulate engine performance and optimize software parameters.
- Created engine software parameter optimization tool and used it to calibrate 3 production engines.
- Reduced lab equipment failures 90% by integrating 5 data sources into a predictive maintenance dashboard.

Rotational Program, Engineer
Peoria, IL · Python, SQL, Matlab/Simulink

- Led a team to design and deploy an internal career development app used by 500+ employees.
- Developed dashboards and pipelines to help engineers monitor their machine designs in production.
- Designed and tested two control algorithms for articulated dump trucks (Patent US11208097B2).
- Strengthened new employee engagement by hosting a quarterly conference for 100+ employees.

Education

2013-2017   **B.S. Mechanical Engineering**, GPA: 3.9/4.0
University of Illinois, Urbana-Champaign
- Key courses: Control Systems, Robotics, Dynamical Systems, Fluid Dynamics

2015, 2016   **Caterpillar, Inc.,** Software Engineer Internships
- Saved an estimated $1 million per year by optimizing Caterpillar's GPS data processing algorithm.
- Developed an application used by 20+ engineers to help them manage engine performance data.

About me

Very familiar: Java, Typescript, Python, SQL, DynamoDB, OpenSearch, Lambda
Fairly familiar: Scala, SageMaker, Glue, Redshift, Neptune
Projects: breathe.acjensen.com – a meditation guide with live visitor count
Hobbies: Professional drumming, learning musical instruments, biking in the city