

SEAN W. EVANS

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E-Mail 
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SKILLS

Programming: Python (6 yrs), C#, C, C++/CUDA, Perl

Machine Learning: PyTorch, TensorFlow, OpenCV, SpaCy

Data & Tools: PostgreSQL, T-SQL, Git, Linux, Make/CMake

Document & Image Processing: PDF manipulation, MS Office SDK, Adobe SDK

Typesetting: L^AT_EX, MathJax

EXPERIENCE

Data Conversion Laboratory

Machine Learning Engineer

Remote

May 2021 – Present

Developed a Detectron2-based ML model to classify document components (equations, tables, figures) with accuracy on par with industry leaders, reducing manual classification by 50%.

Automated document styling using NLP (SpaCy) and the MS Office SDK, cutting manual styling time by half.

Built an Equation OCR system using a CNN-RNN Encoder-Decoder architecture in Torch7/Lua to convert images to L^AT_EX, achieving near state-of-the-art accuracy.

Implemented a checkbox detection system using OpenCV, achieving >96% accuracy across multiple checkbox formats.

Data Conversion Laboratory

Software Engineer

Remote

Sep 2020 – May 2021

- Implemented a scalable PDF cleaning and OCR pipeline (deskew, despeckle, rotate), processing 100k+ pages/week/server.
- Created automated L^AT_EX correction scripts within JATS XML, reducing a dedicated 40-hour manual intervention to under 3 hours weekly.
- Built a general .docx converter using MS Office SDK and InterOp, seamlessly handling multiple formats and tracked changes.
- Employed Agile methodologies, test-driven development, and XML parsing (DOM/SAX) for robust data transformations.

Data Conversion Laboratory

Lead Technology Analyst

Queens, NY

Sep 2019 – Sep 2020

- Led technical initiatives to streamline processing workflows, mentored junior staff, and coordinated with stakeholders.

Data Conversion Laboratory

Technology Analyst

Queens, NY

May 2018 – Sep 2019

- Contributed to custom data conversion solutions and maintained production-level tools for large-scale document migrations.

EDUCATION

Long Island University

Bachelor of Science in Mathematics (in progress)

Long Island, NY

2015–2018