

# SEAN W. EVANS

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## SKILLS

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**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<sup>A</sup>T<sub>E</sub>X, MathJax

## EXPERIENCE

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### Data Conversion Laboratory

Machine Learning Engineer

**Remote**

*May 2021 – Feb 2025*

**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<sup>A</sup>T<sub>E</sub>X, 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<sup>A</sup>T<sub>E</sub>X correction scripts within JATS XML, reducing a dedicated 40-hour manual intervention to under 2 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

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- Long Island University**  
Bachelor of Science in Mathematics

**Long Island, NY**  
*2003–2026*