

# Fast Accounting AI Innovation Brief

Unlocking Business Value Through Proprietary Document Intelligence

## An Executive Technical Summary for IT and Finance Leaders

Fast Accounting is pioneering a smarter future for financial document automation. Our proprietary AI research spans eight advanced projects developed by our Chief AI Architect. These innovations power a next-gen platform designed to read, understand, and structure complex business documents—across languages, layouts, and real-world noise like stamps, handwriting, and curved text.

Unlike generic OCR, or off-the-shelf AI, our models are developed for real-world finance: vendor invoices, receipts, tax forms, and compliance documents that arrive messy, multilingual, and business-critical.

But Fast Accounting is not merely an automation provider; we are an AI research-driven company. Our solutions are built upon exclusive research presented at esteemed global AI conferences and published through Cornell University's arXiv library. This document summarizes eight recent breakthroughs, translating technical advancements into real-world business impacts.


### What sets us apart?

- **Higher accuracy** on messy, scanned, or multilingual documents
- **Broader coverage** tables, text, logos, layouts—all in one platform • **Faster automation** without needing constant fine-tuning or manual retraining

Our tech outperforms Google Vision, LayoutLM, and other industry leaders on key benchmarks. Below is a summary of our core innovations and the business value they deliver.

### Proprietary AI Innovations

Research Title	Learning for Scene Text Spotting	Scene Text Recognition	Decoder-only Transformer for OCR
A3S: Adversarial	DiffusionSTR: Diffusion Model for	DTrOCR:	

<b>RL-LOGO: Reinforcement Learning for Logo Recognition</b>	image-to-text	or vendors in financial documents and scanned receipts	New state-of-the-art across FUNSD, CORD, RVL-CDIP, and DocVQA	IntelliSys 2024
	Applies deep RL to locate logos without needing annotated bounding boxes	One model handles classification, QA, and information extraction—great for cost and speed	+1.3% gain over already top-performing DTrOCR model	<b>JaPOC: Japanese Post-OCR Correction Benchmark</b>
<b>LayoutLLM: Large Language Model for Document Understanding</b>	Fuses layout-aware encoders with LLMs trained via instruction tuning	Reduces misrecognition on hard-to-read text, improving	<b>Conference</b> 	
	Adds a correctness-checking head that helps the model	<b>Outcome</b> 	ICASSP 2023	<b>NTCIR UFO: Table &amp; Text Linking in Financial Reports</b>
<b>JSTR: Judgment Improves Scene Text Recognition Innovation</b> 	<b>Business Value</b> 	+6.9% accuracy over ABCNet baseline; reduced OCR error rates in real-world documents	ICIP 2023	learn from its mistakes
	Introduces semantic-aware text recognition using adversarial learning	Competes with state-of-the-art while using a simpler, more adaptable model		Introduces the first benchmark for fixing OCR errors in Japanese financial documents using T5
Uses diffusion models to iteratively refine text recognition	Recovers text from poor scans, distortion, or glare—ideal for legacy or mobile-captured documents		WACV 2024	
	Lightweight, accurate OCR across formats and languages—great for scale and edge devices	Outperforms most prior OCR models across multiple benchmarks		Uses ELECTRA-based NLP + rule-based correction for table cell classification and linking
Eliminates complex encoder-decoder architectures, using only a decoder (like GPT) for		+18 points accuracy vs traditional CNNs on Logo-2K+ dataset	ICASSP 2024	audit-grade confidence
	Automatically identifies brands		LREC/COLING 2024	Solves a key problem in Japan/APAC markets: OCR errors from

stamps or seals  
on vouchers

NTCIR-17  
competition

NTCIR 2017

Automates  
structured data  
extraction from  
complex financial  
tables, even in  
HTML or PDF

Boosts Vision API  
performance from  
42.6% → 72%  
accuracy with our  
post-OCR  
correction  
  
93.4%  
accuracy, 2nd  
place globally in

PRICAI 2024

## Built for the Future of Finance

These research contributions are not just academic; they power the tools that automate the most challenging aspects of accounting today and are extensible into future needs like real-time financial reporting and global compliance. Fast Accounting's platform is grounded in field-tested, research-driven AI—trusted by top enterprises around the global stage.

## Strategic Benefits

- **Automate messy, multilingual workflows** with confidence
- **Extract structured data** from tables, receipts, vouchers, and scanned documents •
- **Outperform legacy OCR tools** with less human intervention
- **Ready for enterprise deployment** across ERP, accounts payable, and financial audit pipelines

For further details or to schedule a demonstration, [please contact our team](#).