Research Intern - Trustworthy AI

Parsie - P&C Insurance AI Copilot Platform

About Parsie

Parsie is an innovative P&C (Property & Casualty) insurance copilot platform revolutionizing underwriting processes. Our flagship service extracts structured data from complex insurance documents, dramatically accelerating underwriting workflows. With committed pilot customers and proven market validation, we're at the forefront of transforming how insurance professionals work with data.

Position Overview

We're seeking 2 final-year Computer Science students to join our team as a Research Intern. This unique opportunity combines cutting-edge research with real-world application in the high-stakes insurance industry, where precision is paramount and errors can have significant financial consequences.

Research Focus

Primary Research Question: Developing novel methodologies to mitigate hallucination in AI-powered document extraction pipelines for P&C insurance applications.

Key Responsibilities

Research & Development (60%)

- Design and implement innovative approaches to reduce AI hallucination in OpenAI/Azure OpenAI-powered document extraction
- Develop multi-layered validation systems combining prompt engineering, response verification, and confidence scoring
- Create novel architectures for cross-referencing extracted data with insurance domain knowledge
- Build hybrid approaches leveraging both cloud AI services and custom validation logic
- Investigate techniques such as retrieval-augmented generation (RAG), chain-of-thought prompting, and ensemble methods
- Develop real-time monitoring and correction mechanisms within the Next.js application framework

Implementation & Testing (30%)

- Integrate research solutions into Parsie's existing production pipeline
- Design comprehensive evaluation frameworks specific to insurance document types
- Optimize solutions for production-scale performance and reliability

Documentation & Knowledge Transfer (10%)

- Document research methodologies, findings, and implementation details
- Prepare thesis documentation with practical industry validation

Ideal Candidate Profile

Academic Background

- Final-year Computer Science student working on graduation thesis
- Strong foundation in machine learning, natural language processing, or computer vision
- Research experience in AI reliability, robustness, or related fields
- Interest in practical applications of academic research

Technical Skills

- Proficiency in Python, PyTorch/TensorFlow
- Experience with transformer architectures and large language models
- Familiarity with document processing and OCR technologies
- Knowledge of statistical analysis and experimental design
- Understanding of production ML systems (preferred)

Domain Interest

- Curiosity about insurance industry applications
- Appreciation for high-accuracy, mission-critical AI systems
- Interest in bridging academic research with industry problems

What We Offer

- **Thesis Support:** Rich research material with real-world validation
- **Industry Experience:** Production AI systems
- **Mentorship:** Regular guidance from AI practitioners
- **Career Growth:** Potential for a full-time role or continued engagement post-graduation

Application Requirements

- CV highlighting relevant coursework and projects
- Academic Transcript
- Brief research proposal (1-2 pages) outlining potential approaches to hallucination mitigation

Duration & Commitment

- 6-12 months (flexible based on thesis timeline)
- Remote-friendly with periodic in-person collaboration

Application Process

Submit materials to hello@useparsie.com with subject line: "Research Intern - [Your Name]"

Parsie is committed to fostering innovation at the intersection of academic research and industry application. Join us in solving one of the most critical challenges in production AI systems while building the future of insurance technology.