

# NUMINA

## Conrades Distinguished Fellowship Proposal

AI-Powered Accounting Intelligence for Small Business

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<https://numina-ai.com>

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## The Problem: Small Businesses Are Systematically Underserved

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Small and mid-sized businesses face a critical market failure in professional accounting services. Every month-end becomes crunch time as SMBs operate with fragmented tools, manual workflows, and delayed financial data, receiving insight into their financial position weeks after month-end when it's too late to act proactively.

CPAs cannot profitably serve these businesses. A small business client demands disproportionate effort relative to revenue compared to enterprise clients with clean books and dedicated accounting teams. Firms face impossible tradeoffs: turn away SMBs and leave revenue on the table, accept them at low margins with high frustration, or outsource reconciliation offshore while introducing delays without fixing the root problem.

### Three Cascading Consequences

**Delayed Financial Visibility** – Business owners lack real-time insight into their financial position, making proactive cash management and confident decision-making impossible.

**Manual Reconciliation Overload** – CPAs spend 60–70% of their time validating data and correcting errors instead of high-value advisory work. With 15–25 hours per month on reconciliation alone, professional accounting becomes economically infeasible for SMBs.

**Certification & Audit Delays** – Auditors receive incomplete data, triggering repeated back-and-forth. For SMBs pursuing loans or investor funding, these delays directly translate into missed opportunities.

This problem is real and validated. Through direct outreach to CPAs across the US and India, I've confirmed that reconciliation bottlenecks consistently prevent firms from serving smaller clients profitably. One CPA managing 10–15 clients described month-end as "controlled chaos" exactly the pain point Numina addresses.

## Project Idea: Numina

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Numina is an AI-powered layer between existing accounting systems that makes them intelligent. We don't replace QuickBooks or ERPs, we replace the manual work that happens around them.

### Core Value Proposition: Real-Time Closing

Instead of month-end crunch time, Numina delivers continuous financial accuracy throughout the reporting cycle. Transactions are captured, validated, and reconciled in real time as they occur.

### Three Integrated Features

**1. Automated Invoice & Receipt Reconciliation** – AI agents extract purchase orders, invoices, and receipts from email, validate against expected formats, and update the general ledger in real time. Ambiguous entries are flagged immediately rather than discovered at month-end.

*Impact:* Eliminates 15–25 hours of monthly manual work. Keeps financial data continuously current. Replaces outsourced data entry firms.

**2. Rule-Based Transaction Flagging** – Accountants define audit criteria once (e.g., "flag expenses over \$5,000 without purchase order"). Numina converts these into deterministic code that automatically flags non-compliant transactions as they enter the system.

*Impact:* Prevents error accumulation. Reduces end-of-month correction from days to hours. Ensures consistent application of firm standards.

**3. AI-Powered Regulatory Knowledge Base** – A searchable database of accounting standards, tax codes, and regulatory precedents accessible via natural language. Accountants query complex scenarios and receive relevant citations in minutes rather than hours, particularly valuable in markets like India where regulations aren't well-indexed online.

*Impact:* Enables small practices to access knowledge typically available only to large firms with dedicated research teams.

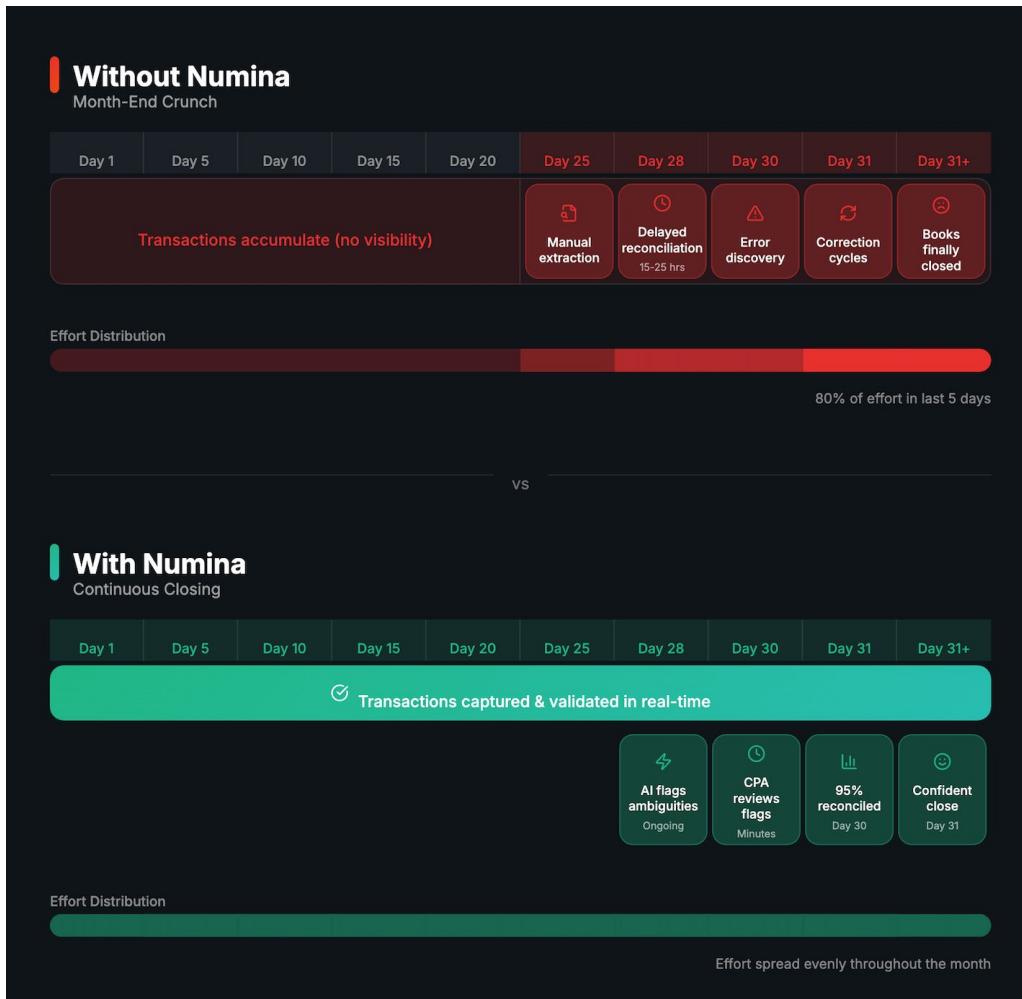


Figure 1: \*  
*Month-end accounting today versus continuous closing with Numina*

### T-Shaped Intelligence: Breadth Meets Depth

Our positioning leverages what Joseph McGee termed the “T-shaped” approach to accounting intelligence:

**Horizontal (Breadth) - AI Layer:** Comprehensive knowledge across jurisdictions and regulations, automated processing of routine transactions, pattern recognition across thousands of cases, instant access to global accounting standards.

**Vertical (Depth) - Accountant Expertise:** Industry-specific knowledge, professional judgment on ambiguous situations, strategic advisory, compliance certification authority.

**Result:** Small businesses get enterprise-grade infrastructure with personalized oversight. Small accounting practices perform like firms 2–3x their size.

### Strategic Positioning: Accountant Enablement, Not Replacement

Critical to our approach is positioning Numina as an accountant’s assistant. Like medical AI requiring physician oversight, Numina flags issues and provides recommendations, but the accountant reviews and approves all submissions. This addresses professional concerns about maintaining the trusted advisor role while managing liability through human verification before client submission.

**Primary User & Buyer:** Numina is designed for small and mid-sized accounting firms (CPAs) that currently find it unprofitable to serve SMBs under \$5M in revenue due to fragmented financial data and manual reconciliation overhead. These CPAs own the workflow, make the purchasing decision, and are responsible for financial accuracy, compliance, and client delivery.

**End Beneficiaries:** Small business owners benefit indirectly through their accountants, gaining real-time financial visibility and faster access to audits, financing, and strategic guidance.

## Value Proposition to CPAs

Metric	Without Numina	With Numina
Clients CPA can serve	10–15	20–30
Revenue per CPA	\$30K–60K/month	\$60K–120K/month
Client type	\$10M+ only (clean books)	\$5M and below (messy books OK)

## Project Plan: Fellowship Work Program

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### My Role and Qualifications

With a software engineering background, I have deep technical understanding of AI systems and workflow automation. The MEM program has equipped me with critical business skills to translate technical capabilities into market value. Courses like Pricing Strategy and Analytics directly address our central challenge of monetizing this solution. Guest lecturer Joseph McGee's guidance on the T-shaped value proposition and selling through professionals has fundamentally shaped our go-to-market strategy.

I will lead product development using the “echo” framework: rapidly prototype features, identify user demand, then build robust solutions. I've always been interested in entrepreneurship, it was a primary reason for pursuing this MEM program. Rather than starting with an idea and searching for customers, I began by working with CPAs to identify key problems, then developed and validated solutions based on stakeholder feedback.

### Fellowship Timeline and Deliverables

#### Phase 1: Market Validation (Months 1–2)

- Conduct surveys and interviews with CPAs across geographies
- Contact state CPA organizations to identify high-value industries
- Test positioning with different firm sizes; create industry portfolio
- Market identification remains primary unknown; prepared to pivot based on findings

*Deliverable: Market research report with target segment recommendation*

#### Phase 2: Pilot Program & GTM Launch (Months 2–4)

- Launch targeted outreach via LinkedIn, CPA associations, and referrals
- Run 30–60 day pilots with 2–3 CPAs testing with SMB clients
- Build robust, client-deployable version from current prototype
- Measure time savings and iterate on high-value features
- Explore Dartmouth Anthropic/AWS partnership for computing infrastructure

*Deliverable: Pilot results report (10+ hours saved/CPA monthly, testimonials)*

#### Phase 3: Pricing Strategy (Months 4–6)

- Analyze token consumption patterns across client types
- Model revenue scenarios by firm size and industry vertical
- Develop value-based pricing tied to 20-50% throughput increase
- Test pricing messaging: ROI first, then cost

*Deliverable: Pricing strategy document with model and sensitivity analysis*

#### Phase 4: Conversion & Expansion (Months 6–8)

- Transition successful pilots to \$750/client/month (5–10 clients per CPA)
- Develop case studies with quantified ROI
- Build referral program and enable self-service client onboarding

- Create sales playbook for scaling

*Deliverable: GTM playbook, 3–5 case studies, referral framework*

### **Phase 5: Final Presentation (Month 9)**

Comprehensive presentation covering validated problem, solution effectiveness with metrics, optimal target segments, pricing model, conversion data, and commercialization path.

### **Team Composition**

Numina is built by three co-founders with complementary expertise that creates a complete founding team:

**Harshul Chandrashekhar (Product Lead):** With my software engineering background, I lead product development and serve as the bridge between technical capabilities and market needs. I develop rapid prototypes using the echo framework, validate features with users, and define technical requirements for production implementation. My MEM coursework in Pricing Strategy and Analytics directly supports our commercialization strategy.

**Manish Reddy (Sales & Client Outreach):** Manish leads client acquisition and stakeholder engagement. He was instrumental in reaching our initial CPA stakeholders who guided us on accounting pain points. His strength lies in recognizing niche problems and leveraging networks for rapid validation-, a critical capability as we navigate market identification and customer discovery phases.

**Muhammad Aatiq (Technical Lead):** Aatiq is our tech lead responsible for building production-ready solutions. In our echo framework, once I validate feature demand through prototypes and clearly define requirements, Aatiq transforms these into robust, scalable, client-deployable systems. His expertise ensures we can deliver enterprise-grade reliability.

Together, we form a complete team covering the critical domains of product strategy, sales and market validation, and technical execution. This structure allows rapid iteration while maintaining production quality.

### **Resources and Support**

I'm actively leveraging multiple resource networks:

**Partner CPA:** Edward Collins (CPA Board at Recbooks) serves as our partner CPA, working directly with us to build and validate the solution. His hands-on involvement provides critical accounting domain expertise and real-world testing of Numina's capabilities in active practice.

**Strategic Partners:** Mercury (banking infrastructure, startup resources including AWS credits and software licenses). Mercury proactively reached out to partner with Numina, providing validation from an industry player specializing in startup banking. We're targeting mid-February 2026 for incorporation via Stripe Atlas, with Mercury account activation to follow.

**Industry Advisors:** Joseph McGee's concept of "T-shaped intelligence" and guidance on selling through professionals rather than directly to consumers has fundamentally shaped our positioning and go-to-market strategy.

**Dartmouth Resources:** Magnuson Center for Entrepreneurship provides ongoing startup support and mentorship would be helpful in navigating logistics around getting incorporated and eventually applying for funding.

**Fellowship Network:** Access to Conrades Fellow community and Dartmouth alumni entrepreneurship network for mentorship and introductions

### **Why This Fellowship Matters**

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The Conrades Fellowship provides more than funding, it offers structured support to transform a technical prototype into a sustainable business. The distinction of being a Conrades Fellow will enhance credibility with CPA partners, the networking access will accelerate customer discovery, and the coaching program will help navigate the critical transition from validation to commercialization.

I believe the accounting industry stands at the cusp of a transformative revolution. Advances in AI have created a rare market opportunity where the technology, market need, and timing converge perfectly. The Conrades Fellowship would enable me to commit fully to realizing this vision with Numina, channeling my entrepreneurial drive into building a solution that fundamentally reshapes how small businesses access professional accounting services. This

represents not just a fellowship project, but the foundation of my post-graduation career, an opportunity to be at the forefront of enabling the AI transformation in accounting while building something of lasting value.

## Current Progress and Momentum

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We have already made significant strides that demonstrate the viability of this venture:

**Functional Prototype:** We have working versions of the reconciliation and flagging features that have been tested with CPAs. The knowledge base pipeline is built and ready for deployment.

**Partner CPA Collaboration:** Edward Collins, a CPA on the Board at Recbooks, is actively working with us as a partner to build and refine the solution. This partnership provides invaluable domain expertise and real-world validation as we develop features tailored to actual accounting workflows.

**Early Market Validation:** We launched an initial pilot with 15–20 accounting professionals in India, actively gathering feedback and iterating on the product. Users strongly validated the regulatory knowledge base, emphasizing that sequential, citation-backed reasoning is critical for resolving convoluted accounting and tax questions in environments where authoritative guidance is fragmented. This reinforced demand for Numina beyond automation into high-trust decision support.

**Strategic Partnership Secured:** Mercury, a leading banking platform for startups, proactively reached out to establish a partnership. This validates our market position and provides critical infrastructure including fee-free banking, integrated invoicing for usage-based billing, QuickBooks integration, and access to startup resources such as AWS compute credits and software licenses. This third-party validation from an industry player demonstrates external recognition of Numina's potential while eliminating significant operational overhead during the critical validation phase.

**Advisor Network:** Through proactive outreach, I've built relationships with industry experts such as Joseph McGee, whose guidance shaped our positioning and go-to-market strategy, demonstrating my ability to identify gaps and seek expert input.

**User-Centered Development:** From the beginning, I've worked directly with stakeholders from the accounting industry to identify key problems. This ground-up approach ensures we're building solutions people actually need rather than solutions in search of a problem.

## Learning Outcomes and Educational Value

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The Conrades Fellowship will provide invaluable learning across multiple dimensions:

**Market Research Methodology:** Conducting systematic customer discovery across geographies and industry verticals will teach rigorous validation techniques applicable to any future venture.

**Pricing Strategy in Practice:** Moving from classroom theory to real-world pricing decisions with actual usage data will deepen understanding of value-based pricing and willingness-to-pay analysis.

**Product-Market Fit Iteration:** The echo framework of rapid prototyping and validation will provide hands-on experience in lean startup methodology and agile product development.

**B2B Sales and Relationship Management:** Learning to sell through professionals (CPAs) rather than directly to end users will develop enterprise sales skills and channel partnership management.

**Technical Resource Management:** Navigating infrastructure constraints and developing contingency plans will build crucial skills in resource-constrained entrepreneurship.

## Conclusion

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Numina addresses a market failure where small businesses that need accounting support most are least likely to receive it. By positioning AI as an enabler, not a replacement, for CPAs, we unlock profitable service delivery and expand the reach of small accounting practices. With my technical background and MEM training, combined with the support and structure of the Conrades Fellowship, I am positioned to dedicate myself fully to this venture and establish Numina as my long-term post-graduation pursuit. This fellowship represents the critical catalyst that will enable me to go all in on my entrepreneurial ambitions and build a foundation for impact in an industry ready for transformation.