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# **Freelance Program**

**Deterministic Settlement Controller - "Pay Only When It's Proven Right"** 

### Join the Financial Infrastructure Revolution

The financial services industry is undergoing a fundamental shift toward **deterministic**, **auditable settlement systems**. Traditional "reconcile later" approaches are failing at scale, costing platforms millions in settlement variance, audit delays, and regulatory risk.

**Verit is building the missing layer**: a deterministic release gate that sits above existing payment rails, ensuring money moves only when mathematically proven correct and properly attested.

We need **elite independent contributors** to help us scale this vision across integrations, tooling, documentation, and research.

## Why Work with Verit as a Freelancer

#### **Cutting-Edge Technical Challenges**

- Build systems that process billions of transactions with zero settlement variance
- Design content-addressed transcripts that provide cryptographic proof of computation
- Create acceptance matrices that gate disbursements based on compliance and fraud signals
- Implement deterministic replay engines that guarantee bit-identical results

#### Flexible, High-Impact Engagement

- **Scoped projects** with clear deliverables and acceptance criteria
- **Flexible scheduling** that works with your availability and timezone

- Fast feedback loops with direct access to founding team and technical leadership
- **Transparent compensation** with rates published upfront and bonus opportunities

#### **Portfolio-Building Opportunities**

- Work on **open source tools** that benefit the entire fintech ecosystem
- Build **reference implementations** that become industry standards
- Create **integrations** with major payment processors and ERP systems
- Develop **educational content** that establishes you as a thought leader

#### **Fair Compensation & Recognition**

- **Competitive rates** based on skill tier and project complexity
- **Net 7 payment** terms on accepted milestones
- **Performance bonuses** for early delivery and exceptional quality
- **Public attribution** for open source contributions and technical writing

## What We're Building: Technical Deep Dive

#### **Core Platform Components**

#### **Deterministic Settlement Engine**

- Single-writer, canonically-ordered event processing
- 128-bit arithmetic with late quantization to prevent rounding drift
- Deterministic carry-ledger for fair sub-cent distribution
- Configurable windowing and partitioning strategies

#### **Content-Addressed Transcripts**

Merkle-tree based checkpointing for fast replay

- Cryptographically signed outputs digests
- Inclusion proofs for dispute resolution
- Compression and storage optimization for petabyte-scale operations

#### **Acceptance Matrix Framework**

- Configurable attestation requirements (Finance ACK, Compliance tokens, SPV proofs)
- Freshness and quorum policies by cohort
- Reason-coded holds with appeal workflows
- Integration with external verification systems

#### **Multi-Rail Orchestration**

- Abstract interfaces for payment processors (Stripe, Adyen, Hyperwallet)
- Atomic disbursement coordination across multiple rails
- Retry logic and failure handling with deterministic outcomes
- Real-time monitoring and alerting

### **Skill Profiles We Need**

#### **Backend Engineering (High Demand)**

#### **Core Platform Development**

- Languages: TypeScript/Node.js, Go, Rust, Python
- Databases: PostgreSQL, ClickHouse, Redis
- Infrastructure: Kubernetes, Docker, Terraform
- **Event Processing**: Kafka, Google Pub/Sub, Amazon Kinesis
- **Security**: KMS/HSM integration, mTLS, OAuth 2.0

#### **Sample Projects**:

- Build high-throughput event ingestion pipeline with exactly-once semantics
- Implement deterministic replay engine with sub-second performance SLAs
- Create multi-tenant transcript storage system with content addressing
- Develop real-time monitoring dashboard for settlement operations

#### **Payment Systems Integration (Premium Rates)**

- **PSP APIs**: Stripe Connect, Adyen MarketPlace, Hyperwallet, PayPal
- Banking: ACH, Wire transfers, SWIFT messaging
- Alternative Rails: Crypto exchanges, digital wallets, Buy-now-pay-later
- **ERP Systems**: NetSuite, QuickBooks, SAP, Oracle Financials

#### Sample Projects:

- Build Stripe Connect adapter with SPV receipt verification
- Create NetSuite integration for automated journal entry generation
- Implement ACH batch file generation with deterministic sequencing
- Develop crypto exchange withdrawal orchestration with multi-sig verification

#### **Data Engineering & Research**

#### **Distributed Systems Research**

- Consensus algorithms and Byzantine fault tolerance
- Performance optimization for high-throughput financial systems
- Privacy-preserving computation and zero-knowledge proofs
- Cross-chain interoperability and atomic swaps

#### **Financial Analytics & Modeling**

- Settlement variance analysis and anomaly detection
- Risk scoring and fraud prevention algorithms
- Regulatory reporting and compliance automation

• Performance benchmarking and capacity planning

#### Sample Projects:

- Research optimal partitioning strategies for global settlement
- Build privacy-preserving audit trail generation system
- Create machine learning pipeline for transaction risk scoring
- Develop benchmarking suite for deterministic settlement performance

#### **Frontend & Product Engineering**

#### **Developer Tools & UX**

- Frameworks: React, Next.js, Vue.js
- **Design Systems**: Tailwind CSS, Chakra UI, Ant Design
- **Data Visualization**: D3.js, Recharts, Observable Plot
- **API Integration**: GraphQL, REST, WebSockets

#### Sample Projects:

- Build policy configuration UI for acceptance matrices
- Create real-time settlement monitoring dashboard
- Develop transcript explorer with search and filtering
- Design onboarding flow for new platform integrations

#### **Documentation & Content**

#### **Technical Writing & Education**

- API documentation and integration guides
- Architecture decision records and design documents
- Video tutorials and workshop materials
- Blog posts and thought leadership content

#### **Developer Relations & Community**

- Conference presentations and technical talks
- Open source project maintenance and community management
- Partner enablement materials and training programs
- Customer success stories and case studies

#### Sample Projects:

- Write comprehensive API documentation with interactive examples
- Create video tutorial series for common integration patterns
- Develop hands-on workshop for deterministic settlement concepts
- Build interactive demo showing settlement variance prevention

## **Engagement Models & Pricing**

#### **Model A: Scoped Fixed-Fee Projects**

Best For: Well-defined deliverables with clear acceptance criteria

#### Structure:

- Detailed project brief with specifications and timeline
- Milestone-based payments (typically 25%/50%/25% split)
- Fixed scope with change request process
- 7-day payment terms on accepted milestones

#### **Typical Project Sizes:**

• **Small** (1-2 weeks): \$5K-\$15K

• **Medium** (3-6 weeks): \$15K-\$40K

• **Large** (2-3 months): \$40K-\$100K

#### **Model B: Time & Materials Engagement**

**Best For**: Exploratory work, ongoing advisory, or evolving requirements

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#### Structure:

- Weekly statement of work with objectives and hour caps
- Bi-weekly invoicing with detailed time tracking
- Regular check-ins and scope adjustment
- Flexible engagement length

#### Rate Bands by Skill Tier:

Senior IC: \$150-\$200/hour

• **Staff/Principal**: \$200-\$275/hour

• **Domain Expert**: \$275-\$400/hour

#### **Model C: Bounties & Community Contributions**

Best For: Open source contributions, documentation, and community building

#### Structure:

- Public backlog of bounty opportunities
- Fixed rewards with clear acceptance criteria
- Fast-track payment (24-48 hours) on approval
- Community recognition and badge system

#### **Bounty Categories:**

• Adapters & Integrations: \$2K-\$10K

Documentation & Tutorials: \$500-\$5K

• Tools & Utilities: \$1K-\$8K

• Bug Reports & Fixes: \$250-\$2K

## **Priority Workstreams for 2025**

Integration & Connectivity (40% of budget allocation)

#### **Payment Processor Adapters**

- Stripe Connect with marketplace split verification
- Adyen MarketPlace with acquirer-specific handling
- Hyperwallet with enhanced KYC integration
- PayPal Payouts with instant transfer support
- Wise Platform for international transfers

#### **ERP & Financial System Connectors**

- NetSuite REST SuiteScript integration
- QuickBooks Online API with real-time sync
- SAP Business One service layer integration
- Xero API with bank reconciliation features
- Oracle Cloud ERP financial module integration

#### **Blockchain & DeFi Integration**

- Ethereum mainnet and L2 settlement verification
- Cross-chain bridge attestation providers
- DeFi protocol yield distribution mechanisms
- Stablecoin treasury management interfaces
- NFT royalty distribution automation

#### **Developer Tools & Platform (30% of budget allocation)**

#### **Transcript & Proof Tooling**

- Command-line interface for transcript sealing and verification
- Proof pack generator with configurable evidence types
- Reason code explorer with search and analytics
- Replay engine with performance optimization

• Diff tools for cross-version settlement comparison

#### **Monitoring & Observability**

- Real-time settlement performance dashboards
- Alerting system for variance detection and policy violations
- Capacity planning tools and performance projections
- Compliance reporting automation
- Customer health monitoring and success metrics

#### **SDK & API Development**

- TypeScript SDK with comprehensive type definitions
- Python SDK for data science and analytics workflows
- Go SDK for high-performance integration scenarios
- REST API improvements and GraphQL schema development
- Webhook system for real-time event notifications

#### **Documentation & Education (20% of budget allocation)**

#### **Technical Documentation**

- Comprehensive integration guides for each payment rail
- Architecture deep-dives with sequence diagrams and code examples
- Security and compliance implementation guides
- Troubleshooting runbooks and common issue resolution
- API reference documentation with interactive playground

#### **Educational Content**

- Video tutorial series for developers and product managers
- Workshop materials for customer onboarding
- Blog post series on deterministic settlement best practices

- Conference presentation materials and technical talks
- Case studies and customer success stories

#### Research & Innovation (10% of budget allocation)

#### **Performance Optimization**

- Transcript compression algorithms and storage efficiency
- Replay engine performance tuning and parallelization
- Database optimization for high-throughput scenarios
- Network latency reduction and edge computing strategies

#### **Privacy & Security Research**

- Zero-knowledge proof integration for settlement verification
- Differential privacy techniques for audit trail publication
- Homomorphic encryption for multi-party settlement computation
- Secure multi-party computation for cross-organization verification

## **Quality Standards & Acceptance Criteria**

#### **Technical Excellence**

#### **Deterministic Behavior**

- All outputs must be byte-identical under identical inputs and policies
- No floating-point arithmetic in monetary calculations
- Deterministic error handling and failure modes
- Reproducible builds and deployment artifacts

#### **Testing & Verification**

- Unit test coverage minimum 85% for core logic
- Golden file tests for settlement computation verification

- Integration tests with real payment processor sandboxes
- Load testing with performance benchmarks and SLAs

#### **Security & Compliance**

- No secrets or credentials in source code or logs
- KMS/HSM integration for cryptographic operations
- All artifacts cryptographically signed with audit trails
- OWASP security scanning and vulnerability assessment

#### **Operational Excellence**

- Comprehensive logging with structured output and correlation IDs
- Metrics collection with Prometheus-compatible endpoints
- Feature flags for gradual rollout and emergency rollback
- Graceful degradation and circuit breaker patterns

#### **Documentation & Usability**

#### **Code Documentation**

- Clear README with setup, configuration, and usage instructions
- Architecture diagrams and sequence flows for complex integrations
- Code comments explaining business logic and edge cases
- Configuration examples and common usage patterns

#### **User Experience**

- Intuitive APIs with consistent naming and error handling
- Clear error messages with actionable remediation steps
- Comprehensive logging for troubleshooting and debugging
- Performance metrics and monitoring dashboards

## **Onboarding Process & Support**

#### **Week 1: Foundation Setting**

#### **Day 1: Legal & Administrative Setup**

- Execute NDA and independent contractor agreement
- Complete tax forms and payment method setup
- Receive GitHub repository access with scoped permissions
- Get sandbox environment credentials and API keys

#### **Day 2: Technical Deep Dive**

- Review architectural documentation and proof packs
- Run sample transcript generation and replay scenarios
- Understand acceptance matrix configuration and testing
- Explore existing codebase and contribution guidelines

#### **Day 3: Project Scoping & Planning**

- Detailed project brief review and acceptance criteria clarification
- Technical design discussion and implementation approach
- Milestone definition and timeline agreement
- Set up communication channels and review cadence

#### **Day 4-5: First Contribution**

- Submit initial pull request with project scaffolding
- Pass continuous integration checks and code review
- Demonstrate understanding of deterministic requirements
- Establish feedback loop and iteration process

#### **Ongoing Support & Community**

#### **Weekly Office Hours**

- Open Q&A sessions with technical leadership
- Code review and architecture discussion
- Best practices sharing and knowledge transfer
- Community showcase and demo sessions

#### **Dedicated Communication Channels**

- Private Slack workspace for real-time collaboration
- Technical discussion forums for asynchronous communication
- Regular one-on-one check-ins with project stakeholders
- Quarterly freelancer community meetups and networking

#### **Professional Development**

- Conference presentation opportunities and speaking support
- Open source project leadership and maintenance roles
- Technical blog writing and thought leadership development
- Skill development recommendations and training resources

## **Certification & Career Progression**

#### **Freelancer Tier System**

#### **Registered Freelancer** (Entry Level)

- Successfully completed onboarding process
- Submitted first accepted contribution
- Demonstrated understanding of platform fundamentals
- Access to standard project briefs and bounty opportunities

#### **Certified Freelancer** (Proven Track Record)

• Completed 3+ projects with high quality ratings

- Demonstrated expertise in specific technical domain
- Positive feedback from internal stakeholders and customers
- Priority access to new project opportunities

#### **Preferred Freelancer** (Elite Status)

- Completed 10+ projects with exceptional quality
- Contributed to open source projects and community building
- Proven ability to lead technical discussions and mentor others
- Co-author privileges on technical publications and presentations

#### **Benefits by Tier**

#### **Rate Premiums**

- Registered: Standard rates
- Certified: 10-20% premium on base rates
- Preferred: 20-35% premium plus profit-sharing opportunities

#### **Project Access**

- Registered: Public bounties and standard project briefs
- Certified: Early access to new opportunities and choice of projects
- Preferred: Custom project creation and strategic initiative involvement

#### **Recognition & Networking**

- Registered: Community forum participation and basic portfolio support
- Certified: Conference speaking opportunities and customer introduction
- Preferred: Advisory board participation and partnership referrals

## **Sample Project Briefs**

### **Project Brief 1: NetSuite Integration Adapter**

**Objective**: Build production-ready adapter connecting Verit settlement outcomes to NetSuite general ledger

Scope:

Map settlement windows to GL journal entries with transcript references

• Implement real-time sync with configurable batching policies

Handle error scenarios and retry logic with idempotent operations

• Provide admin interface for mapping configuration and monitoring

**Deliverables**:

• TypeScript module with comprehensive API coverage

• Unit and integration test suite with 90%+ coverage

Documentation including setup guide and troubleshooting

• Demo implementation with sample data and workflows

**Acceptance Criteria**:

• Deterministic GL entry generation for identical settlement inputs

• Sub-5-second latency for real-time sync operations

Graceful handling of NetSuite API rate limits and outages

Comprehensive audit trail linking GL entries to settlement transcripts

Timeline: 6 weeks

**Project Brief 2: Real-Time Settlement Dashboard** 

**Objective**: Create monitoring dashboard for settlement operations with real-time performance metrics

Scope:

• Live settlement window processing status and performance metrics

• Acceptance matrix monitoring with alert configuration

- Settlement variance detection and anomaly highlighting
- Historical analysis and trend visualization

#### **Deliverables**:

- React-based dashboard with responsive design
- Real-time WebSocket integration for live data updates
- Configurable alerting system with multiple notification channels
- Export functionality for compliance reporting

#### Acceptance Criteria:

- Sub-second update latency for critical metrics
- Scalable architecture supporting 1000+ concurrent users
- Accessible design meeting WCAG 2.1 AA standards
- Comprehensive error handling and fallback mechanisms

Timeline: 4 weeks

### **Project Brief 3: Privacy-Preserving Audit Trail System**

**Objective**: Research and implement zero-knowledge proof system for settlement verification without data disclosure

#### Scope:

- Literature review of applicable ZK proof systems
- Proof-of-concept implementation with performance benchmarks
- Integration with existing transcript system
- Security analysis and threat modeling

#### **Deliverables**:

- Technical research report with recommendations
- Working prototype with test vectors and validation

- Performance analysis and scalability projections
- Integration plan for production deployment

#### **Acceptance Criteria**:

- Mathematically sound proof system with formal verification
- Proof generation time under 10 seconds for typical settlement windows
- Verification time under 1 second with minimal computational requirements
- Comprehensive documentation suitable for regulatory review

Timeline: 8 weeks

## **Legal Framework & Intellectual Property**

### **Work-for-Hire Agreement**

**Default Arrangement**: All work products belong to Verit Global Labs with standard work-for-hire terms

**Open Source Exception**: Dual licensing available for contributions intended for open source release

**Attribution Rights**: Public credit for contributions with professional portfolio usage rights

**Non-Compete Limitations**: Reasonable restrictions focused on direct platform competition, not general fintech work

### **Confidentiality & Data Handling**

**NDA Requirements**: Comprehensive non-disclosure agreement covering technical architecture and customer information

**Data Security Standards**: Adherence to SOC 2 Type II equivalent controls for data handling and storage

**Synthetic Data Usage**: All development and testing performed with synthetic datasets to protect customer privacy

**Clean Room Development**: Isolation requirements for contributors working with multiple fintech platforms

#### **International Considerations**

**Global Contributor Support**: Legal framework supporting contributors in 30+ countries

**Tax Compliance**: Form W-9/W-8 processing and 1099 reporting for US tax requirements

**GDPR Compliance**: Data processing agreements meeting European privacy regulations

**Export Control**: ITAR and EAR compliance for technology transfer and international collaboration

## **Application Process & Getting Started**

### **Step 1: Initial Application**

**Portfolio Submission**: GitHub profile, previous work samples, and technical writing examples

**Skill Assessment**: Technical questionnaire covering relevant technologies and problem-solving approach

**Project Preference**: Selection of preferred project types and engagement models

**Reference Checks**: Professional references and previous client testimonials

### **Step 2: Technical Interview**

**Architecture Discussion**: 60-minute technical conversation about distributed systems design

**Code Review Session**: Live code review of candidate's previous work with improvement suggestions

**Problem-Solving Exercise**: Whiteboarding session on deterministic settlement challenges

**Cultural Fit Assessment**: Discussion of working style, communication preferences, and values alignment

### **Step 3: Trial Project**

**Small Scope Engagement**: 1-2 week trial project with defined deliverables

Mentorship & Support: Enhanced support during trial period with daily check-ins

Mutual Evaluation: Feedback collection from both candidate and Verit team

**Conversion Decision**: Clear criteria and timeline for ongoing engagement decision

### **Step 4: Full Program Integration**

**Onboarding Completion**: Full technical setup and access provisioning

**Project Assignment**: Selection from available briefs matching skills and interests

**Community Integration**: Introduction to other freelancers and internal team members

Success Planning: Goal setting and career development discussion

## **Community & Culture**

#### **Core Values**

Technical Excellence: Commitment to high-quality, well-tested, maintainable code

**Intellectual Honesty**: Direct feedback, acknowledgment of limitations, and continuous learning

**Customer Impact**: Focus on solving real problems with measurable business value

Collaborative Growth: Knowledge sharing, mentorship, and community building

**Communication Standards** 

**Asynchronous-First**: Respect for different timezones and working schedules

**Documentation Culture**: Written communication and decision records for all important discussions

**Constructive Feedback**: Focus on improvement and learning rather than criticism

**Inclusive Environment**: Welcome for contributors from diverse backgrounds and experience levels

#### **Recognition Programs**

**Monthly Spotlight**: Highlighting exceptional contributions and innovative solutions

**Annual Awards**: Recognition for outstanding impact, mentorship, and community building

**Conference Speaking**: Support and opportunities for technical presentation and thought leadership

**Customer Success Stories**: Featuring freelancer contributions in marketing materials and case studies

## **Frequently Asked Questions**

### **Getting Started**

**Q: What's the minimum time commitment required?** A: No minimum commitment. Projects range from 1-week bounties to 3-month engagements. Choose what fits your schedule.

**Q: Can I work on projects while employed full-time elsewhere?** A: Yes, with standard non-compete restrictions. We accommodate various schedules and availability patterns.

**Q: Do I need previous fintech or payments experience?** A: Not required, but helpful. We provide comprehensive onboarding and domain expertise through mentorship.

**Q:** How do you handle different timezones? A: Fully asynchronous collaboration with optional overlap for urgent projects. Global team with 24/7 coverage.

#### **Technical Requirements**

**Q: What development environment setup is required?** A: Standard development setup with Docker, Git, and preferred IDE. We provide access to cloud development environments if needed.

**Q:** How do you ensure code quality and consistency? A: Automated testing, code review process, linting, and CI/CD pipelines. Detailed style guides and best practices documentation.

**Q: Can I use my preferred programming language?** A: Primary languages are TypeScript, Go, and Python. Other languages considered for specific use cases and research projects.

**Q:** How do you handle intellectual property from my previous work? A: Clean room development practices ensure no IP conflicts. We review and approve any reuse of previous work or open source components.

### **Compensation & Logistics**

**Q: How are rates determined and adjusted?** A: Transparent tier system based on skills, experience, and track record. Annual rate reviews and market adjustments.

**Q: What happens if project scope changes mid-stream?** A: Formal change request process with scope and compensation adjustment. No surprise requirements or unpaid scope creep.

**Q:** How do you handle payment disputes? A: Clear acceptance criteria and milestone-based payments minimize disputes. Escalation process with neutral arbitration if needed.

**Q: Can I work on competing projects simultaneously?** A: Limited non-compete focused on direct platform competition. General fintech work is typically acceptable with disclosure.

### **Career Development**

**Q: Are there opportunities for full-time employment?** A: Yes, many freelancers transition to full-time roles. Performance in freelance projects often leads to employment offers.

**Q:** How do you support professional development? A: Conference attendance, training reimbursement, mentorship programs, and leadership opportunities in open source projects.

**Q: Can I lead projects or manage other freelancers?** A: Preferred tier freelancers often take technical leadership roles and coordinate multi-person projects.

**Q:** How do you handle references and portfolio building? A: Public attribution for contributions, LinkedIn recommendations, and detailed reference letters for future opportunities.

## **Next Steps: Join the Program**

#### Ready to Build the Future?

**Step 1**: Submit your application at freelance@veritglobal.com with:

- GitHub profile and portfolio links
- Brief cover letter explaining your interest and relevant experience
- Preferred project types and engagement model
- Availability and timeline preferences
- **Step 2**: Complete technical assessment and interview process
- **Step 3**: Start with trial project to demonstrate capabilities and cultural fit
- **Step 4**: Begin contributing to production systems and earning recognition in the community

#### **Contact Information**

**Program Management**: freelance@veritglobal.com **Technical Questions**: engineering@veritglobal.com

Partnership Opportunities: partnerships@veritglobal.com

**General Information**: info@veritglobal.com

Ready to shape the future of financial infrastructure?

Join us in building deterministic, auditable settlement systems that eliminate variance and enable trust.