

# HANNAN SYED SHAH

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## EDUCATION

**Rutgers University School of Engineering – Honors College**

May 2026

*B.E. in Computer Engineering*

*Full-ride scholarship recipient; **QuestBridge** National Match Finalist*

## EXPERIENCE

**Beagle Labs**

Oct. 2025 – Present

*Founding Research Engineer*

*New York City, NY*

- At a \$5M seed-stage AI startup, owned production systems across **Next.js, TypeScript, Supabase, AWS Lambda, Google Cloud Run, and Stripe**, shipping inspector, operations, payouts, valuation, and AI-underwriting workflows.
- Shipped a production **Inspector Portal** for multi-property coordination with Clerk/Supabase RLS, batch-level data isolation, Resend webhook ingestion, RFC 5322 email threading, and secure attachment storage.
- Designed a **Stripe Connect Express payout system** for 1099 contractors with hosted KYC and bank onboarding, banking-status gates, idempotent transfers, ops approval, audit logs, and webhook replay reconciliation.
- Built a **multi-agent property intelligence pipeline** using Google ADK with six parallel domain analyzers plus a synthesis agent, strict JSON contracts, token/latency monitoring, Cloud Run autoscaling, and SSE streaming.
- Built a serverless **replacement-cost valuation engine** with versioned YAML cost models and topological resolution for 30+ derived dimensions; versioned **76+ Supabase migrations, RLS policies, storage buckets, and auth configs** across dev/prod.

**Browserbase**

Jun. 2025 – Aug. 2025

*Core Engineer Intern*

*San Francisco, CA*

- Developed an internal **Admin Dashboard** inside Browserbase's Kubernetes cluster, replacing the legacy Support CLI, centralizing support operations, and paving the way to remove production secrets from 25+ engineer laptops.
- Built federated **universal search** across Supabase and Clerk for organizations, projects, and users, exposing cross-entity relationships and reducing first-response enterprise triage from **30 minutes to under 5 minutes**.
- Implemented high-risk support actions including plan upgrades, concurrency throttles, stealth toggles, and email resets with Zod validation, tiered Clerk RBAC, auditability controls, and safer production change workflows.
- Engineered a plug-and-play **1Password integration** with signed WebExtension bundling and OTP-aware login; led RCA on Microsoft E2E tests by adding proxy tracing and support-script instrumentation.

**Casca AI**

Jan. 2025 – Apr. 2025

*Software Engineer Intern*

*San Francisco, CA*

- Built end to end **credit scoring automation** with SOAP integrations, reducing loan decision time from **72 hours to under 2 minutes**.
- Engineered AWS Textract + Elasticsearch document search over **20,000 client files**, improving loan officer retrieval workflows.
- Delivered loan-ops automation across Next.js, TypeScript, tRPC, Prisma, jsPDF, Gmail API, Redis, OpenAI, and S3, generating **500+ invoices** and cutting SBA auth from **over 2 days to under 1 minute**.

**Florida International University**

May 2024 – Aug. 2024

*Machine Learning Research Intern*

*Miami, FL*

- Built C++ simulation harnesses for federated learning on resource-constrained IoT devices, evaluating FedAvg, Krum, Median, Trim Mean, FLTrust, ROMOA, quantization, and pruning under Byzantine attacks on CIFAR-10 workloads.

## PROJECTS

**Voyager** | *Go, TypeScript, Kubernetes, WebSockets, Observability*

- Built a **cloud-native flight simulator** with Kubernetes deployment using Prometheus, Grafana, Loki, and OpenTelemetry.

**Cylixia** | *TypeScript, Clinical Research Infrastructure, NSF I-Corps*

- Selected for **NSF I-Corps Propelus** after 30+ researcher interviews; built clinical research data-analysis infrastructure.

**Atlas / Hawkeye** | *AI Agents, Clinical Search, Knowledge Graphs, Enterprise Guardrails*

- Won **HackPrinceton Regeneron Runner-Up** and **Datadog AI Agent Hackathon 3rd Place**.

## TECHNICAL SKILLS

**Languages:** TypeScript/JavaScript, Python, SQL, Go, C++

**Backend & Infrastructure:** React, Next.js, Node.js, AWS, GCP, Kubernetes, Docker, Terraform, PostgreSQL, Redis, Elasticsearch

**Systems & Tools:** Distributed Systems, Microservices, Real-Time Systems, CI/CD, Prometheus, Grafana, OpenTelemetry, Agents