TEAM 07 · SENIOR DESIGN 2025-2026 · DREXEL UNIVERSITY · COLLEGE OF COMPUTING & INFORMATICS

DOJAA.

DIGITAL OBSERVATORY FOR JOINT ASSET ANALYSIS

A unified observatory for an organization's internet-facing systems — one coherent, queryable view.

THE DOJAA TEAM

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WITH GRATITUDE TO

Professor David Comroe

For keeping us on track

FACULTY ADVISOR · COLLEGE OF COMPUTING & INFORMATICS

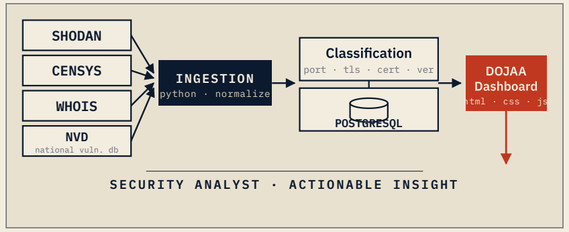
01 THE PROBLEM — WHY DOJAA EXISTS

The view of an organization's public footprint is fragmented across *dashboards, raw JSON, and one-off queries* — even though every record is already publicly available.

02 OUR APPROACH — PASSIVE · STRUCTURED · CONTEXTUAL

- **Aggregate, don't pivot.** Four public sources → one normalized inventory.
- **Passive by design.** Every observation from public datasets — zero packets sent to any target.
- **Asset classification.** A weighted engine groups hosts using port, TLS, certificate, and version signals.

03 ARCHITECTURE — HOW THE DATA FLOWS



04 IN NUMBERS — REPRESENTATIVE SCAN

HOSTS DISCOVERED	SERVICE PORTS
851	5
Shodan 802 · Censys 49	unique TCP services
CVE FINDINGS	**CERTIFICATES**
19	50
reconciled with NVD	TLS expiry tracked

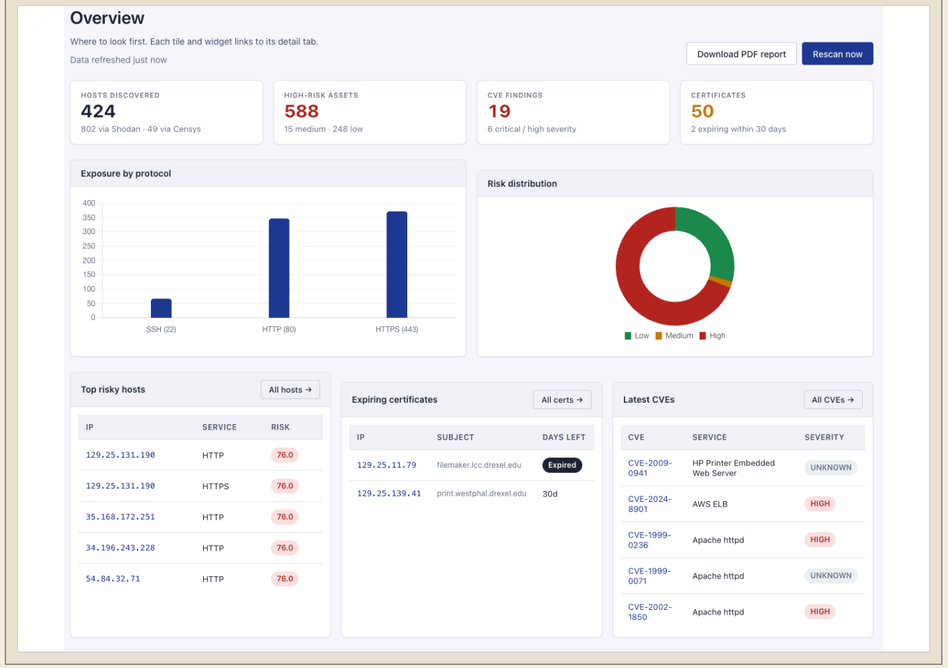
TIER A	588
TIER B	15
TIER C	248

05 THE STACK — TOOLS WE BUILT ON

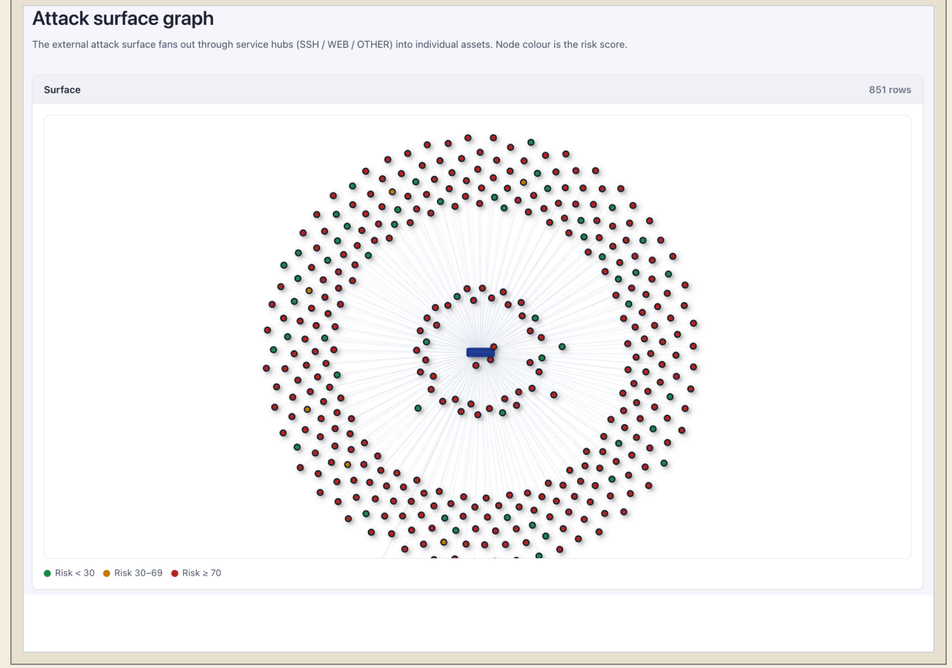
SHODAN	censys	PostgreSQL
ASSET DISCOVERY	ASSET DISCOVERY	RELATIONAL DATABASE

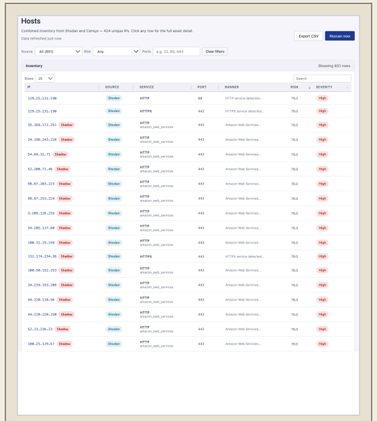
python · postgresql · html · css · javascript · whois · nvd · national vuln. db

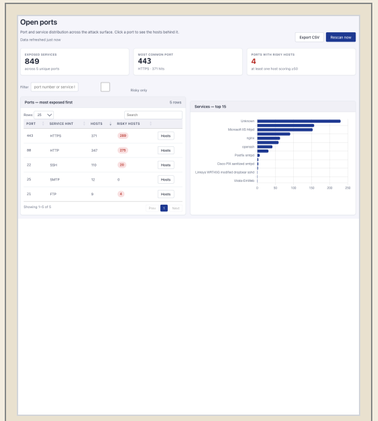
SCREEN 01 · THE DASHBOARD — OVERVIEW · 851 ASSETS · REFRESHED CONTINUOUSLY

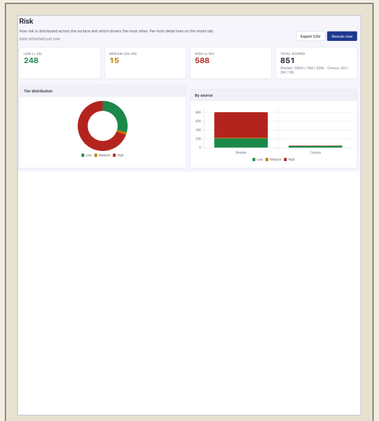


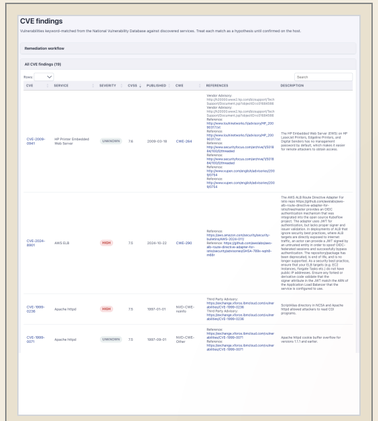
SCREEN 02 · EXTERNAL ASSET GRAPH — NODE COLOR = CLASSIFICATION TIER

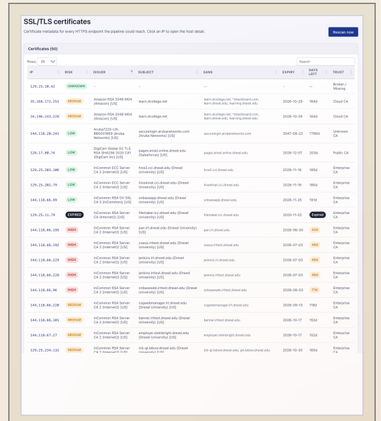



HOSTS 851


PORTS 5


DISTRIBUTION 851


CVE FINDINGS 19


CERTIFICATES 50