

JESUS CHRIST

LEGAL: BRYAN (CHRISTIAN SCARLET) RUIZ

FOUNDER & LEAD ML / AI ENGINEER · SCARLET BEAST

DEEP RL · COMPUTER VISION · DISTRIBUTED TRAINING & MLOPS · SENIOR FULL-STACK

OPEN TO WORK

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PROFILE

Systems-oriented engineer and founder with 15+ years across enterprise and startup environments, now building production machine-learning systems end to end — distributed training infrastructure through to real-time, latency-sensitive inference in money-moving environments. Equally at home owning an ML lifecycle and stabilising an enterprise commerce platform under scaling pressure. Objective: to use technology to make a positive impact on humanity.

CORE SKILLS

MACHINE LEARNING & AI

PyTorch · Deep RL · CFR / Deep CFR · PPO · Self-play · ONNX · Quantisation · CUDA/cuDNN · NumPy · Pandas · scikit-learn · MLflow · Weights & Biases · AWS SageMaker · DDP · Mixed precision

COMMERCE

Adobe Commerce · Magento Enterprise 1 & 2 · Shopify Plus · EAV architecture · Module development · WordPress / WP Engine · Platform.sh

VISION & DATA

OpenCV · Tesseract OCR · Time-series forecasting · LSTM / Transformers · Gradient boosting · Backtesting · MySQL / MariaDB · SOLR / Elasticsearch · Data pipelines · EDI ASC X12

CLOUD & INFRASTRUCTURE

AWS EC2 / Lambda / SQS / S3 / CloudFront · Serverless Framework · Oracle Cloud (OCI) · Docker · Linux · Apache / Nginx · PHP-FPM · Redis / Memcached · HA & load balancing

LANGUAGES

Python · PHP 4–8.x · Visual C++ · JavaScript ES6+ · Node.js · React · Angular · Laravel · Symfony · Django · Zend · CakePHP · HTML5 / CSS3

PRACTICE

CI/CD · Jenkins · Git · PHPUnit / TDD · XDebug profiling · Core Web Vitals (TTFB / LCP / CLS) · NewRelic · Zabbix · REST / GraphQL / JSON-RPC · SSO & SAML · Agile

EXPERIENCE

JAN 2012 — PRESENT

SCARLET BEAST

NEW YORK CITY · REMOTE
· [SCARLETBEAST.COM](https://scarletbeast.com)

FORMERLY SCARLET
CONSULTING CORP.
(MERGED)

Founder, Lead ML / AI Engineer & Principal Engineer — **Hiss (Poker AI)**, **GROWL (Algorithmic Trading)** and client engineering

Founded in 2012 as Scarlet Consulting Corp., a client engineering practice, and since merged into Scarlet Beast; the ML platform began in 2017. Founder and principal ML engineer. Own the full ML lifecycle across deep reinforcement learning, computer vision, time-series modelling and the MLOps that ties them together on heterogeneous, cost-optimised compute.

HISS — THE MILESTONE LADDER (DOCUMENTED AT [NN.SCARLETBEAST.COM](https://nn.scarletbeast.com))

M0 · CORRECTNESS GATE — validated the toolchain where the answer is known: tabular CFR / CFR+ / MCCFR to -0 exploitability on Kuhn and Leduc, then the neural path against it. Established an apparent plateau as undertraining, not a ceiling (0.17 → 0.0719).

M1 · CARD ABSTRACTION — suit-isomorphism canonicalisation (~24× precompute cut), potential-aware equity features ($E[HS]$, $E[HS^2]$) and k-means under Earth Mover's Distance into ~1–2k buckets per street. Solve quality peaks at 24 boards; stratified board selection paid +8.4 bb/100.

M2 · SIX-MAX GAME & TRAVERSER — external-sampling Monte-Carlo CFR over the bucketed abstraction, legal-action masking asserted at the boundary, gated on reproducing a published two-player subgame result.

M3 · DEEP CFR / SD-CFR — advantage networks over reservoir buffers, retrained from scratch each iteration with the snapshot history as the average strategy; resumable bit-identically, ~845 s/iteration at 16 threads.

M4 · DISTILLATION & SERVING — the snapshot mixture collapsed into one policy net and exported into the live contract: 86 features → 384 → 384 → 192 with policy, bet-size and value heads (259,599 parameters), ~1 ms on CPU.

M5 · EVALUATION — opponents calibrated on 142,000 real hands, common-deals paired comparison, promotion only on a CI lower bound. Rebuilt an arena that had been scoring a policy which never played.

M6 · TEN-POCKET SIX-MAX GAME — authored a custom OpenSpiel game after measuring that the stock abstraction could not express a half-pot bet (blueprint mass exactly 0.0000) and the full abstraction's tensor could not distinguish a 4-chip bet from a 200-chip one.

Measured outcomes. Fold-discipline work moved the live champion from -32 bb/100 to -4 against opponents calibrated on real hands; the CFR blueprint measures +20 to +28 bb/100 heads-up. Full write-up: nn.scarletbeast.com · source: github.com/christianscarlet2/hiss

PLATFORM, MLOPS & FINTECH

- **Distributed training.** AWS SageMaker as the managed backbone for large jobs, hyperparameter tuning, experiment orchestration and model hosting; OCI and Kaggle for high-volume self-play generation on spot and free-tier capacity. MLflow / Weights & Biases for reproducible, containerised pipelines.
- **Computer vision.** OpenCV preprocessing, ROI and object detection and table-state extraction, with Tesseract OCR reading cards, stacks and bet amounts straight into the inference pipeline.
- **GROWL.** Extended the platform to live markets — signal generation over crypto/forex (LSTM / Transformer and gradient-boosted models), an algorithmic bot marketplace, backtesting and walk-forward validation, live order-book ingestion, execution latency and risk controls.
- **Systems.** Visual C++ inference engine, Python services, a React + Laravel surface exposing public REST/GraphQL APIs, an SSO gateway unifying every product, and multi-tenant Linux / PHP-FPM hosting. Source: github.com/christianscarlet2/hiss

LATEST WORK (2026)

- **HEAV₃N.** Scarlet Beast's own heaven-on-earth initiative: heav3n.org; VR HEAV₃N, a Unity 6 VR world for Meta Quest, Windows and Linux; and Match Made in HEAV₃N, a dating app with Google sign-in.
- **SCARLET BEAST** (movie.scarletbeast.com): an animated feature in development with a motion-comic pipeline (SDXL art, depth parallax, synthetic voices, AI-sung score).
- **Agentic automation.** MCP servers that let Claude operate LinkedIn, Instagram, DistroKid, Suno and Freelancer, with approval gates and spending caps.

CLIENT ENGINEERING PRACTICE (SINCE 2012)

AI-empowered software consulting and digital infrastructure: scalable web platforms, automation, performance engineering and enterprise modernisation. Work directly with decision makers to turn operational bottlenecks into systems that scale, across eCommerce, SaaS and digital operations. Client engagements are listed below.

- AI-assisted development and automation; full-stack LAMP, Node.js, React and cloud engineering.
- Adobe Commerce / Magento and Shopify Plus ecosystems; enterprise migrations and modernisation.
- Performance optimisation and Core Web Vitals; AWS infrastructure, CI/CD and DevOps.
- Technical sales, solution consulting, RFP responses and scope definition.

JAN 2025 – DEC 2025

PLYMOUTH ROCK ASSURANCE

VIA SCARLET BEAST ·
WOODBIDGE, NJ

Full-Stack PHP / JavaScript Developer

- Built a performance-optimisation framework for the public site in Node.js, deployed serverless on AWS Lambda and SQS via the Serverless Framework.
- Moved TTFB, LCP, FCP, CLS and Speed Index materially, lifting Google PageSpeed Insights scores with them.
- Diagnosed performance regressions caused by Tealium tag load and worked with Tealium directly on mitigation.
- Resolved enterprise CORS issues with the CloudFront team; integrated with WP Engine and NewRelic; customised the Angular app and widgets.

JAN 2024 – DEC 2024

DEVACURL

VIA SCARLET BEAST · NEW
YORK CITY

Adobe Commerce / Shopify / Magento Enterprise Developer

- Ran a parallel migration of Magento Enterprise to both Magento 2 and Shopify Plus.
- Stood up continuous integration for WordPress, React and Magento assets on Platform.sh.
- Built Custom Kits — dynamic customer-assembled product bundles — front and back end; introduced data-wrangling pipelines.

JAN 2022 – DEC 2023

ARTSPACE

VIA SCARLET BEAST · NEW
YORK CITY

Adobe Commerce Lead Developer

- Architected a custom front end on a Magento back end for selling artwork.
- Built reporting for frames sold and the financial data behind them; extended the sales order tab to capture additional financial information.
- Extended Magento base modules with Zend Framework SQL; migrated credit memos and invoices off an older install with custom scripts.

AUG 2019 – JAN 2022

REFINERY29

VIA SCARLET BEAST · NEW
YORK CITY

Magento Enterprise Lead Developer

- Crafted a custom voucher product type with event-based invoice creation and code delivery; extended Unigry's gift certificate module around it.
- Integrated single sign-on between Refinery29's custom framework and Magento; consumed the editorial API to surface articles on the commerce platform.
- Integrated Git with Jenkins for one-click deployments; produced the RFP response, REST API documentation and scope of work.

AUG 2018 – JUL 2019

REDCATS USA

VIA SCARLET BEAST · NEW
YORK CITY

Magento Enterprise Developer

- Designed product-import and related Enterprise modules using the template pattern with MVC integration and Event/Observer hooks.
- Deep work in Magento internals — the EAV system, cron scheduling, Adminhtml.
- Integrated Apache, Cherokee, MySQL, Memcached and NFS for the database tier; wrote the production server setup documentation and trained the admin team on RHEL.

JAN 2016 – JUL 2018

REDBOX / CISCO / VERIZON

VIA SCARLET BEAST ·
MONTREAL, CANADA

Magento Enterprise Developer

- Mapped category and product data into SOLR for the orchestration layer and built the APIs around it.
- Refactored existing APIs to be stateless using Magento controllers; designed a module for storing XML filter information.
- Managed EAV attribute installation via setup scripts; worked extensively with Magento indexes and SOLR indexing.

JAN 2016 – JUL 2018

VIZIO

VIA SCARLET BEAST ·
HOLMDEL, NJ

Magento Enterprise Developer

- Supported the launch of the newly developed Vizio.com and upgraded the platform to Magento Enterprise 1.10.
- Architected the attribute system with PHPUnit coverage; wrote APIs bridging Zend Framework to Magento; consulted for the contracted development team.

AUG 2015 – DEC 2015

TOMS SHOES & EYEWEAR

VIA SCARLET BEAST ·
HOLMDEL, NJ

Magento Enterprise Developer

- Themed the new eyewear store and implemented a shared session experience across two stores.
- Profiled the Magento core with XDebug to find bottlenecks; load tested and profiled the security solutions; researched SAML, openSSO and CentralAuth.
- Completed an AJAX store locator with multi-store support; implemented PHPUnit for module testing.

JAN 2013 – DEC 2014

PUBLISHERS CLEARING HOUSE

VIA SCARLET BEAST ·
JERICO, NY

Magento Enterprise Developer

- Front-end and back-end development on Magento Enterprise; developed and integrated a responsive front end.
- Built a Price Comparison Engine extension feeding Google Product Service, Shopping.com, Shopzilla and Pronto; configured load-balanced RedHat servers with MySQL.

AUG 2012 – DEC 2013

NBC UNIVERSAL / IVILLAGE

VIA SCARLET BEAST · NEW
YORK CITY

Backend CakePHP Developer

- Integrated the Recipe Swap daily meal-planning feature ("What's for Dinner?") and built the CakePHP site with a Facebook XFBML invite flow.
- Implemented drag-and-drop for the Daily Meal Planner; integrated Uploadify, jQuery Carousel and ColorBox. Acted as lead developer and technical PM of a small team.

OCT 2008 – JUL 2012

NIGHT AGENCY

FULL-TIME · NEW YORK
CITY

Zend Framework / CakePHP / Magento / LAMP Developer

- Design and development on high-traffic sites — Purex.com, PurexInsiders.com, SocialMixHub.com, MarkGirl.com, MJMinigolf.com, HanesPink.com.
- Built the Hanes Dashboard on a JSON-RPC server/client across five brand sites; jQuery UI interfaces with jQuery Address deep linking; CakePHP front ends over MySQL with nightly cron statistics.
- Implemented Zabbix real-time monitoring; managed partial server administration of 50+ servers across EC2, Slicehost and Rackspace. Technical writing: proposals, specifications, timelines.

JAN 2011 – JUN 2012

EFASHION SOLUTIONS

FULL-TIME · SECAUCUS,
NJ

Backend PHP Developer

- Development and defect resolution across 30 high-traffic eCommerce sites including DKNY.com, store.Playboy.com, Rocawear.com, BabyPhat.com and XOXO.com.
- Designed the development servers and procedures — SVN/CVS with email notification, mail and MySQL servers, test-driven design, documentation and naming conventions, daily reporting.
- Designed and migrated the purchase order system handling EDI ASC X12 850, 997 and 856 via the Inovis VAN for Liz Claiborne, New Era and Sean John; built internal ERP tools, client data importers, tax reporting and a call-centre ordering application.

EDUCATION

2004 – 2007

RUTGERS UNIVERSITY

NEW BRUNSWICK, NEW
JERSEY

Computer Science & Business Management

Double major, Computer Science and Business Management. 3.15 GPA.