



CO-FOUNDER AND CTO, ONETEXT
FORMERLY PRINCIPAL STAFF ENGINEER, PAYPAL
SAN JOSE, CA

Daniel Brain

Agentic AI, conversational payments and developer platforms. Hands-on CTO who builds the agents that shop, pay and sell.

daniel@bluesuncorp.co.uk
linkedin.com/in/bluepnume
github.com/bluepnume
bluepnume.medium.com
onetext.com
onecheckout.ai
danielbrain.ai

PROFILE

Co-founded OneText (Y Combinator W23; seed-funded by Khosla Ventures, Coatue, Citi Ventures and Y Combinator), wrote its entire first platform, then hired the team that took it to profitability in 2026. Ten years at PayPal, rising to Principal Staff Engineer on Checkout: led the Java to Node.js, React and GraphQL migrations and Smart Payment Buttons, and created zoid and post-robot, open-source libraries with more than 25 million npm downloads. Co-inventor on two granted PayPal patents, with two more applications pending on secure agent checkout. Speaker at seven conferences, author of essays with 800K+ lifetime views, and still shipping production code every week.

EXPERIENCE

Co-founder and CTO · OneText

May 2022 – present · San Jose

Conversational payments for e-commerce: text-to-pay turns a shopper's phone number into a wallet and their SMS or RCS thread into a sales channel, with customizable conversational flows for marketing, sales and payments. Y Combinator W23; \$4.5M seed from Khosla Ventures, Coatue, Citi Ventures, Y Combinator, Pioneer Fund and Good Friends.

- **Build the text-to-pay platform** that runs marketing, sales and payments by text for hundreds of merchants and has driven hundreds of millions of dollars in attributable revenue: payments vaulted against the phone number, consent-based reorders, customizable conversational flows, SMS and RCS delivery.
- **Designed and built OneCheckout** (onecheckout.ai), the payments layer that will let AI agents buy anything online, routing across Mastercard Agent Pay, Visa Intelligent Commerce, PayPal and Stripe Shared Payment Tokens; a free MCP for Claude Code and Codex is live today and the platform API is in waitlist.
- **Designed its security model**, now in two pending patent applications: cards and credentials are stored in a user-held keychain, trusted deterministic code fills card fields in the browser frame and decrypts once with a non-exportable in-browser key, so no agent, model or prompt injection can ever see a card number and the key never leaves the device.
- **Build the browser agent's learn-and-replay architecture**: a frontier model learns a merchant's checkout once, then a fast executor built on Jev, a decision model that answers typed questions instead of generating text, replays it (repeat purchase in 15.7 seconds in testing, with no frontier-model calls), measured nightly by a benchmark gym of real checkouts.
- **Build the MCP servers that open the platform to agents**: a OneText MCP through which a coding agent can sign a merchant up, pick a plan and pay with a secure card flow, and a wallet-agent API that stores cards, accounts and identities so an agent can use them anywhere online.
- **Shipped customer, merchant and internal facing agents**. A few examples: a shopping agent that sells by text, orchestrating recommendation, cart, checkout, order and escalation sub-agents; a support agent that builds conversational automations and answers merchants' reporting questions; an engineering management agent that posts daily status per engineer, tracks every ticket, pull request and ETA, and chases stalled reviews; and an agent that turns production alerts into pull requests.

PLATFORM AND LEADERSHIP

- **Wrote the first platform alone** in TypeScript, Node.js and React on PostgreSQL and Redis: the phone-linked wallet, merchant dashboard, Shopify, Twilio, PayPal, Stripe and Authorize.net integrations and a JSON conversational-flow engine; first customer March 2022, nearly a year before the first engineering hire.
- **Grew the company to profitability**: three consecutive profitable months by April 2026, revenue up 60% and SaaS revenue up 275% year over year, 100 million texts sent, hundreds of brands including Caden Lane, Hotel Collection and Ministry of Supply.
- **Hired nine engineers since 2023** and wrote the engineering handbook the team works by: plan before coding, small instrumented releases, tests through real interfaces, clear ownership, decisions made in writing.
- **Set the expectation that every engineer runs a team of agents**: for gathering requirements, authoring code, review, cross-team communication, monitoring and observability, and paying down tech debt.

HIGHLIGHTS

10 yrs

PayPal Checkout, Engineer to Principal Staff

25M+

npm downloads, zoid and post-robot, 2017–2025

2 + 2

PayPal patents granted, applications pending

9

engineers hired since 2023

800K+

lifetime views across twelve essays

2026

OneText profitable

PATENTS

US 11,379,550 · granted 2022
Seamless service on third-party sites · PayPal

US 10,902,394 · granted 2021
One line in-context user interface · PayPal

Pending · 2026
Two applications on secure card handling for AI agents · OneText

PRESS

TechCrunch · 2025
OneText raises \$4.5M from Y Combinator, Khosla to reinvent shopping by text

TechCrunch · 2018
PayPal Checkout can now be personalized to each shopper

PYMNTS · 2018
PayPal rolls out Checkout with Smart Payment Buttons

PYMNTS · 2018
PayPal Smart Buttons goes global

Hacker News front page · 2022
Subscriptions are out, refills are in (152 points)

Hacker News front page · 2017
Introducing PayPal's open-source cross-domain JavaScript suite (133 points)

TECHNOLOGIES

LANGUAGES AND FRAMEWORKS

TypeScript Node.js
Python React Next.js
GraphQL

DATA AND INFRASTRUCTURE

PostgreSQL Redis
ClickHouse DynamoDB
AWS AWS SQS EventBridge
EKS GitHub Actions

AI

- **Designed the event-driven backend:** webhooks acknowledged and handed to workers, task state in DynamoDB, priority SQS queues, EventBridge scheduling, ClickHouse for attribution, and EKS split into standard and PCI environments so card handling stays isolated; queued sends now deliver 5,000 distinct SMS and RCS messages per second at peak load.
- **Built and run payments, messaging and compliance:** card vaulting through Spreedly on top of each merchant's own processor, SMS and RCS delivery through Twilio, the PCI DSS program for the payments agent, Stripe Connect onboarding completed by API inside a text conversation, and TCPA consent handling.

Principal Staff Engineer · [PayPal Checkout](#)

Apr 2012 – May 2022 · San Jose

Engineer 2012 · Senior 2013 · Staff 2015 · Senior Staff 2016 · Principal Staff 2020

- **Principal engineer on the Checkout team** of 40-50 engineers, reporting to its senior director. Led initiatives across web and native checkout, the web and native SDKs, the Orders and Payments REST APIs and the GraphQL layer, working with the Sales, Credit, Venmo, Identity and Honey teams.
- **Shipped Smart Payment Buttons**, one integration that shows each shopper PayPal, Venmo, PayPal Credit or local payment methods: US launch June 2018, global rollout that September, covered by TechCrunch and PYMNTS.
- **Led Checkout's migration from Java to Node.js** and its later move to React and GraphQL, after contributing to the earlier C++ to Java migration. Drove the [2014 Node.js rebuild](#), which reached conversion parity within weeks, and the [2016 to 2017 re-architecture](#) that moved thousands of merchant button integrations into one cross-domain iframe, so updates shipped centrally with no merchant re-integration.
- **Created [zoid](#)**, the cross-domain component framework behind that design, and **[post-robot](#)**, its cross-window messaging layer: [more than 25 million npm downloads](#) between them from 2017 to 2025, still dependencies of PayPal's JavaScript SDK today; by 2019 the suite also ran PayPal's login, merchant onboarding and hosted card fields.
- **Designed how PayPal's JavaScript SDK reaches merchants**, presented at [Node Summit 2018](#): bundles compiled on demand for each merchant and cached at the edge, configuration embedded through GraphQL, versioning pinned to each merchant's integration date, and releases activated by npm dist-tag so a bad release rolls back in minutes. Built the CDN release pipeline and the headless-browser test tooling behind it.
- **Designed the simplified PayPal and Braintree merchant integration** (2017), one JavaScript API for both, and shipped the responsive Pay Later, Credit, Venmo and card buttons (2020).
- **Ran Kids in Tech summer coding camps** for employees' children, teaching on a [JavaScript game engine](#) written for the camps.

Web Designer and Developer · [Freelance](#)

Oct 2008 – Apr 2012 · UK

- Built sites from scratch before, during and after a law degree: Poleroid Theatre, Land Surveys Ltd and Django sites for Durham's Law Review, Law Society and Mooting Society.

SIDE PROJECTS

- 2026 [peertalk.ai](#): end-to-end encrypted messaging between AI agents over WebRTC, with room keys that never reach the server; an MCP server, Node and Python clients and a browser extension.
- 2018–21 [BrainBlocks](#): co-founded a merchant-payments platform for the Nano cryptocurrency, letting stores accept fee-free payments at checkout; built the JavaScript checkout client and wallet popup, the Node RPC client and the WooCommerce integration; open-sourced in 2021.
- 2007–13 [EventScripts](#): core contributor to the scripting platform for Valve's Source game servers; reimplemented its shell language in Python and built the EnemyDown match-admin plugin used daily by thousands of clans.
- 2026 [degen-trade](#) **UNPUBLISHED**: multi-agent paper-trading system on the Claude Agent SDK and OpenAI Agents SDK, where agents make market forecasts that are Brier-scored every week, with an autonomous coding operator that improves the system in isolated workspaces.
- 2026 [media-sorter](#) **UNPUBLISHED**: sorts a personal media library by having a model classify each file while deterministic code plans and executes the moves, with journaled recovery after crashes and a Swift tvOS client with Siri search.

WRITING

Essays since 2015 on bluepnume.medium.com and PayPal's engineering blog, 800K+ lifetime views across twelve selected pieces: [Understand promises before async/await](#) (600K+ views), [PayPal's open-source cross-domain suite](#) (52K, Hacker News front page), [Iframes are just terrible](#) (41K), [JSX is a stellar invention, even without React](#) (27K), [Functional-ish JavaScript](#) (27K) and [Subscriptions are out, refills are in](#) (23K, Hacker News front page).

Claude Agent SDKOpenAI

JevMCPPlaywright

PAYMENTS AND MESSAGING

StripePayPalBraintree

SpreedlyVisa

MastercardTwilio

Shopify

TALKS

- 2021 [Building Bitcoin in JavaScript](#) · JS@PayPal
- 2019 [Let's Make Iframes Cool Again](#) · FullStack London
- 2018 [Leaving the CDN Behind: a JavaScript SDK in a Serverless World](#) · Node Summit
- 2017 [Cross-Domain Components with React and XComponent](#) · FullStack London, JAMstack
- 2016 [Building PayPal into Cross-Domain Web Components](#) · Node Summit
- 2015 [Building PayPal's Global Payment Experience](#) · Node Summit

OPEN SOURCE

PayPal's cross-domain JavaScript suite, open-sourced in 2017 under the [krakenjs](#) and [paypal](#) organizations: the libraries that render and talk to PayPal Checkout inside merchant pages. Original author of [zoid](#), [post-robot](#) and the suite's core libraries; a major contributor to the Checkout SDK.

COMPONENTS AND MESSAGING

[zoid](#) · [post-robot](#) · [fetch-robot](#)

CROSS-DOMAIN SAFETY

[cross-domain-utils](#) · [cross-domain-safe-weakmap](#)

ASYNC AND SERIALIZATION

[zalgo-promise](#) · [universal-serialize](#)

TELEMETRY

[beaver-logger](#)

UTILITIES

[belter](#) · [jsx-pragmatic](#) · [memcookies](#) · [jwt-csrf](#)

BUILD AND RELEASE

[grumbler](#) · [grabthar](#) · [paypal-sdk-release](#)

CHECKOUT SDK

[paypal-checkout-components](#)

Monthly npm downloads, October 2026: [post-robot](#) 538K · [cross-domain-utils](#) 537K · [zalgo-promise](#) 515K · [belter](#) 503K · [zoid](#) 406K.

EDUCATION

Durham University, St John's College

LLB (Hons) Law, 2:1 · 2008 – 2011