



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.

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- bluepnume.medium.com
- onetext.com
- onecheckout.ai
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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

May 2022 – present
San Jose, CA

Co-founder and CTO · OneText

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.

- **Built 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.

AI AND AGENT SYSTEMS

- **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.
- **Built 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.

HIGHLIGHTS

10 yrs

PayPal
Checkout,
Engineer to
Principal Staff

2 + 2

PayPal patents
granted,
applications
pending

25M+

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

800K+

lifetime views
across twelve
essays

7

conference
talks, Node
Summit to
JS@PayPal

2026

OneText
profitable

15+

open-source
libraries
behind PayPal
Checkout

9

engineers
hired since
2023

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

- **Built 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.
- **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

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.

PYMNTS · 2018
PayPal rolls out Checkout with Smart Payment Buttons

PYMNTS · 2018
PayPal Smart Buttons goes global

Nilson Report · 2018
PayPal's Smart Payment Buttons

The Motley Fool · 2018
This new PayPal product is driving Venmo monetization

I-Programmer · 2017
PayPal open sources JavaScript suite

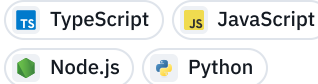
Hacker News front page · 2022
Subscriptions are out, refills are in (152 points)

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

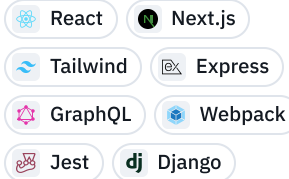
Y Combinator · W23
OneText company profile

TECHNOLOGIES

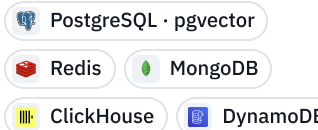
LANGUAGES



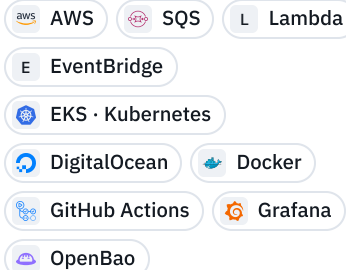
FRAMEWORKS



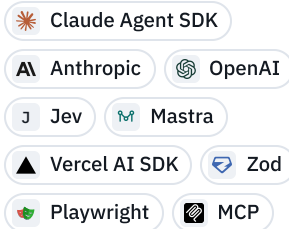
DATA



CLOUD AND INFRASTRUCTURE



AI



Apr 2012 –
May 2022
San Jose, CA

Oct 2008 –
Apr 2012
United
Kingdom

- **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

- 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.

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. Monthly download figures are for October 2026.

[zoid](#)

Cross-domain components rendered in iframes and popups, passing props, callbacks and functions across windows, with React, Vue and Angular bindings.

2.1K stars · 406K downloads a month

[post-robot](#)

Promise-based cross-window messaging with acknowledgements, timeouts and callable function serialization; the transport under zoid.

786 stars · 538K downloads a month

[zalgo-promise](#)

Promises that resolve synchronously when they can, so cross-window checkout stays responsive when browsers throttle timers in background tabs.

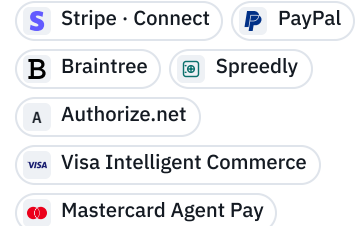
515K downloads a month · tens of thousands of merchant sites within a year of release

[beaver-logger](#)

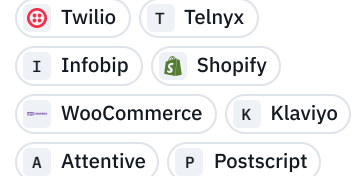
Buffered browser logging and performance metrics with periodic flush and an Express receiver; still a dependency of PayPal's JavaScript SDK client today.

256 stars · 64K downloads a month

PAYMENTS



MESSAGING AND COMMERCE



TALKS

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

WRITING

Essays since 2015 on [bluepnume.medium.com](#) and PayPal's engineering blog; the twelve he rates highest, 800K+ lifetime views between them (author dashboard, October 2026), two of them Hacker News front page.

[Understand promises before async/await](#)
2018 · 601K views · 153K reads · 11.3K claps

[PayPal's open-source cross-domain suite](#)
2017 · 52K views · 4.9K claps · Hacker News front page

[Iframes are just terrible](#)
2019 · 41K views · 645 claps

[Functional-ish JavaScript](#)
2019 · 27K views · 859 claps

[JSX is a stellar invention, even without React](#)
2021 · 27K views · 1.6K claps

[Subscriptions are out, refills are in](#)
2022 · 23K views · 832 claps · Hacker News front page

[Cross-origin requests without CORS](#)
2017 · 16.7K views · 365 claps

[Building Bitcoin in JavaScript](#)
2021 · 11.3K views · 106 claps

[You don't know jack about SMS](#)
2022 · 5K views · 88 claps

[The magic of serializing functions](#)
2021 · 4.7K views · 30 claps

[Interviewing a little differently](#)
2022 · 2.3K views · 195 claps

[Regex in JSX without releasing Zalgo](#)
2020 · 672 views · 19 claps

EDUCATION

Durham University, St John's College
LLB (Hons) Law, 2:1 · 2008 – 2011

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

Window and origin utilities, a WeakMap that survives cross-domain windows, and serialization for sending functions and objects across the boundary.

537K downloads a month for cross-domain-utils

[belter](#) · [jsx-pragmatic](#)

Shared browser and Node utilities, and framework-agnostic JSX rendering used for server-rendered payment buttons.

503K and 41K downloads a month

[fetch-robot](#) · [memcookies](#) · [jwt-csrf](#)

Cross-origin requests without CORS through an allow-listed iframe proxy; encrypted client-carried cookies for cookies-disabled browsers; stateless CSRF middleware for Express.

2016 – 2017

[grumbler](#) · [grumbler-scripts](#) · [grabthar](#)

A library starter and build, test and release stack (Babel, Flow, Webpack, Karma, headless Chrome), and dynamic npm dependency activation in production with rollback.

289 stars for grumbler

[paypal-checkout-components](#) · [paypal-smart-payment-buttons](#) · [paypal-sdk-release](#)

The PayPal Checkout SDK merchants embed, the server-rendered Smart Payment Buttons, and the release pipeline that packages versioned components to PayPal's CDN with activation separate from distribution.

1.3K stars, 615 forks · major contributor to the SDK · authored the 2017 Braintree integration and the 2020 Pay Later, Credit, Venmo and card buttons

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 – 2021

[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 – 2013

[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.