

JOSHUA JOHNS

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EDUCATION

University of Illinois Urbana-Champaign

Master of Computer Science (M.C.S.), GPA: 3.66

Bachelor of Science in Computer Science, GPA: 3.58

- James Scholar, Dean's List. Coursework: Applied Machine Learning, Natural Language Processing, Parallel Programming.

Five-year B.S./M.C.S. program, completed a semester early

Jan. 2025 – Dec. 2025

Aug. 2021 – Dec. 2025

EXPERIENCE

AI & Software Engineer I

Jan. 2026 – Present

PMG

Dallas, TX

- Shipped 90+ full stack features and fixes across a React, TypeScript, Redux Toolkit and RTK Query frontend and a Django and PostgreSQL backend for Creative Studio, an ad creative automation platform that replaced the legacy Dynamic+ toolchain for 25+ enterprise brands and cut new ad time to launch from 6 to 8 weeks down to 3 days.
- Built the feature flag gating and on-demand preview environments that carried the product from internal alpha to general availability, backing the migration that moved 100% of the company's social catalog clients off legacy tooling.
- Built the delivery destination layer publishing creatives to Meta, Pinterest and Reddit, with client-level destination settings, a Manage Destinations UI, per-destination variant and size selection, feed compatibility filtering, and automated product catalog syncing that replaced a manual handoff.
- Engineered real-time progress tracking, job notifications and a reusable unsaved-changes safeguard for render and delivery jobs that fan out to 130K+ ad variants per run, and paginated a template list that previously rendered every record on load.
- Cut load cost and lifted throughput with a template-scoped render info endpoint, higher web concurrency, a corrected autoscaling trigger, and by releasing a user row lock held for the full length of every request.
- Traced silent data loss where feed uploads bypassed CSV sanitization and any row containing a newline dropped later columns, then used Datadog to isolate a staging outage to a screenshot renderer out of disk that had left the delivery dead letter queue at roughly 78,000 messages.
- Migrated core modules to TypeScript with Zod validation, moved the variant table and delivery sections onto React Hook Form, normalized template sizing into a relational schema, and handled Tier 2 production support.
- Designed and built Channel Captain with two other engineers, a Python Slack bot governing channel creation, naming and ownership across a 3,000+ channel enterprise workspace, cut its ten requested Slack admin scopes to four through enterprise security review, and shipped it on AWS EC2 provisioned with Terraform.

Machine Learning Research Assistant

May 2025 – Aug. 2025

ClassTranscribe

Urbana, IL

- Built an end-to-end ML pipeline with OpenCV and Tesseract OCR to extract on-screen text from lecture video, improving accessibility and search for 60,000+ students.

Cloud Engineer Intern

May 2024 – Aug. 2024

Kenvue

Skillman, NJ

- Built NLP onboarding tools for Azure and AWS that cut cloud knowledge-retrieval time 30% for 1,000+ employees.

Data Scientist Intern

May 2023 – Aug. 2023

Johnson & Johnson

Remote

- Deployed a production Python/NLP chatbot and built scalable data pipelines supporting analytics across 2,000+ products.

LEADERSHIP & TEACHING

Graduate Teaching Assistant, Computer Science

Jan. 2025 – May 2025

University of Illinois Urbana-Champaign

Champaign, IL

- Led discussion sections, office hours, and student support for a course of 800+ students.

Lead Full Stack Developer

Mar. 2022 – Dec. 2022

Reflections | Projections

Urbana, IL

- Led MERN-stack development of the registration and scheduling site for the Midwest's largest student-run tech conference.

SKILLS

Languages: Python, TypeScript, JavaScript, Java, C/C++, C#, SQL, HTML/CSS

Frontend: React, Redux Toolkit, RTK Query, React Router, React Hook Form, Zod, Next.js, Material UI, Tailwind CSS

Backend & APIs: Django, Node.js, Express.js, .NET, REST APIs, Celery, Redis, Stripe, Slack API

Data & Cloud: PostgreSQL, MySQL, MongoDB, Snowflake, Amazon Athena, Drizzle, Supabase, pandas, scikit-learn, AWS (EC2/ECS/S3/CloudFront), Terraform

DevOps & Testing: Git, GitHub Actions, CI/CD, Docker, Linux, Datadog, pytest, Vitest, Playwright, OpenFeature, Flagsmith

Certification: SnowPro Associate: Platform Certification, Snowflake (Apr. 2026)