

# Gareth Ng

[garethng@gmail.com](mailto:garethng@gmail.com) • [garethng.com](http://garethng.com) • 814-321-7168 • [linkedin.com/in/garethng](https://www.linkedin.com/in/garethng)

## EXPERIENCE

---

**Poke - NFT Generator** [poke.so](http://poke.so) (Frontend Engineer) Next.js, Nest.js, Supabase, Radix UI **April 2022 - January 2023**

- Crafted Next.js/TypeScript frontend for creating and showcasing event-themed NFTs
- Implemented React Testing Library unit tests, Cypress e2e tests, GitHub Actions for CI/CD, reducing bugs by 9%
- Built component library with Storybook, styled-components, and Radix UI, amplifying developer productivity
- Architected Mailgun email flow for sending and minting of NFTs for large-scale events with hundreds of attendees
- Enforced WAI-ARIA accessibility best practices, leading to flawless Lighthouse scores and enhanced usability
- Engineered a multi-step NFT creation process with React Hook Form, Framer Motion, and React Spring

**Nova - Communication App** [joinnova.co](http://joinnova.co) (Full-stack Engineer) React, Firebase, Google Cloud **July 2021 - April 2022**

- Co-led UI redesign and rebranding of app, resulting in a 15% surge in views and user engagement/post
- Designed and developed email service with SendGrid, sending 200k emails/month with a 75% unique open rate
- Optimized backend by reducing daily Firebase Cloud Function calls from 200k to 15k, cutting cloud costs by 2%
- Automated weekly digest newsletter with Firebase, Mailgun, and Google Cloud Platform serverless functions, saving marketing team 10+ hours/week
- Coordinated technical recruiting initiatives by designing comprehensive interview questions, conducting interviews, and leading onboarding of new hires

**Camera assistant** - Freelance film industry

**July 2019 - February 2021**

## PROJECTS

---

**Vocalize - Conversation Skills Builder** [usevocalize.com](http://usevocalize.com) Next.js, Express.js, Twilio **August 2022 - July 2023**

- Built and designed Next.js app featuring video and voice calling, community page with posts/comments, user directory, real-time messaging, and analytics
- Integrated Twilio Video API to enable 250+ concurrent global video calls
- Guaranteed at-least-once delivery of emails with BullMQ message queue and Resend email API
- Created secure authentication and authorization service with OAuth 2.0 and magic email links
- Implemented scalable real-time messaging using WebSockets and Redis Pub/Sub
- Achieved end-to-end type safety, enhanced developer experience, and minimized bugs with Turborepo, tRPC, Zod, TypeScript, and Prisma

**AI Notes App** [github.com/gcn12/notes-ai](https://github.com/gcn12/notes-ai) Next.js, Supabase, OpenAI **October 2023 - November 2023**

- Developed AI-powered semantic search functionality within a Next.js and Supabase app
- Leveraged OpenAI APIs to translate textual inputs into numerical representations called vector embeddings, ensuring precise search results by capturing textual relationships and semantic meanings
- Incorporated pgvector, HNSW indexes, and PostgreSQL to efficiently store and query vector data
- Employed ChatGPT API to generate unique, detailed responses tailored to user inquiries
- Configured rate limiting service with Redis and token bucket algorithm, minimizing costs and resource usage

## EDUCATION

---

**Pennsylvania State University** Bachelor of Science, Accounting

**Graduated 2019**

## TECHNICAL SKILLS

---

- **Frontend:** React, Next.js, JavaScript, TypeScript, Storybook, HTML, CSS, Tailwind, RadixUI, Framer Motion
- **Backend:** Express, Node, Redis, SQL, Prisma, Postgres, WebSockets, Firebase, BullMQ, Sentry, Turborepo, Nest.js
- **Other:** AWS, S3, Cypress, Jest, React Testing Library, Figma, SendGrid, GitHub Actions, Playwright, Google Cloud