

# NICKY MARINO

<https://github.com/nickymarino> | <https://nickymarino.com>

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## SENIOR FULL STACK ENGINEER

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Nothing brings me more joy than solving tough technical challenges and learning new technologies. I'm a results-driven and detail-oriented engineer with 3+ years of experience writing production code in Python and Typescript. Obsessed with finding the right balance between scalability and complexity.

## TECHNICAL SKILLS

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**Languages:** Python, Typescript, SQL, HTML, Java, Bash

**Frameworks:** React, Postgres, AWS, Serverless Framework, MUI, Flask, Django, Pandas, PyTest, Docker, Kubernetes

**Skills:** REST APIs, Database Design, Unit Testing, CI/CD Pipelines, Microservices, Data Engineering, Git

**Certifications:** AWS Certified DevOps Engineer – Professional  
AWS Certified Developer – Associate  
AWS Certified Cloud Practitioner

## WORK EXPERIENCE

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### Senior Software Engineer, Full Stack

January 2022 – Present

*Thoughtful AI*

*Remote*

- Core contributor to every facet of our software stack, including the React frontend, backend Typescript REST APIs in AWS Lambda, Postgres data store, and Python telemetry SDK
- Received annual All Star Award to recognize a year of perfect performance ratings from senior leadership
- Reduced a product's start-up delay by 98% by migrating the service to AWS Lambda
- Owned two full products for the company, including feature discovery, infrastructure design, implementation, and on-call support (Typescript, Python, AWS)
- Integrated automated testing into the CI/CD pipeline to reduce bugs and manual testing time on two products (Python, GitHub Actions)

### Software Engineer

February 2020 – December 2022

*ModelOp*

*Remote*

- Deployed 5 ML models into enterprise production environment on time and on budget (Python, Kubernetes)
- Architected an ETL process to generate and validate machine learning model results (Python, SQLAlchemy, Kubernetes)
- Enabled team to write runbooks quickly by creating an SDK to orchestrate workflows across multiple microservice REST APIs and a document database (Python, MongoDB)
- Reduced runtime for a data pipeline to analyze 50M+ records by 40% less time via query optimization (Spark, Python)

### Patent Engineer

July 2019 – February 2020

*Hanley, Flight & Zimmerman LLC*

*Chicago, IL*

- Built end-user GUI to view and update client database records (C#, SQL)
- Wrote patent applications on ML implementations by synthesizing technical specifications from multiple stakeholders
- Created professional patent drawings to depict ML architectures, novel algorithms, and circuit designs

### Head Undergraduate Teaching Assistant

August 2016 – December 2018

*Purdue Honors Engineering*

*West Lafayette, IN*

- Saved tens of hours of manual grading time by implementing an automated testing framework to grade code submissions (Python, Docker)
- Created lesson plans for and taught review monthly sessions on Python programming for 200+ students

**Software Engineer Intern***Indesign, LLC*

Summer 2018

*Indianapolis, IN*

- Developed UI to read and write RFID tag data by interfacing with a microcontroller (Node, JS, HTML, CSS)
- Improved microcontroller RFID read speed by 25% through writing a custom RFID data parser (C, FreeRTOS)

**Software Engineer Intern***Consumers Energy*

Summer 2017

*Jackson, MI*

- Eliminated manual data validation by implementing an ETL to parse and validate NOAA weather data (Python, SQL)
- Integrated datasets with millions of records into BI visualizations by building a OSIssoft SDK (Python, Scikit, C#)

**Data Specialist***Freedom Mortgage Corporation*

Summers 2015 and 2016

*Fishers, IN*

- Designed UI and database to efficiently search and update census data for home addresses (SQL, Visual Basic)
- Independently created a GUI and database to package, store, and send loan documents (SQL, Visual Basic)

**PROJECTS AND VOLUNTEER WORK**

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**Virgo**<https://github.com/nickymarino/virgo>

- Created a CLI wallpaper generator that supports custom configurations (Ruby)
- Improved CLI performance by 30x through code profiling and data structure optimizations (see [technical writeup](#))

**Personal Website**<https://nickymarino.com>

- Authored in-depth tutorials on data structures, such as implementing hash maps from scratch in Python
- Earned over 1,700 unique visitors per month through strong content and SEO

**President, Board Member***Local LGBTQ+ Group*

October 2021 – Present

*Chicago, IL*

- Regularly hosted events with 70+ members to build community and raise funds for local charities
- Led a team of 7 board members through challenges such as COVID-19 and a leadership transition by encouraging active listening and collaboration
- Managed Google Workspace organization and Wordpress e-commerce website

**EDUCATION**

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**Purdue University**

Bachelor of Computer Engineering, Cum Laude (GPA 3.86)

2015 – 2019