Jonathan Young

Web Developer rooted in domain driven design, resilience, and problem solving skills.

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US citizen

ABOUT ME

I'm a software engineer with over two years of experience in building web applications with technologies including TypeScript, Node.js, GraphQL, React, and LangChain. Previously in medicine, I found myself frequently combining domain knowledge with programming skills to build tools for myself and others, and so I switched careers to software development to focus on building my skills. I believe in taking the time to learn something well and apply it to any given task.

EXPERIENCE

Software Engineer (contract)
LA Film Lab and Studio, Los Angeles CA
2024 - Present

Responsible for building a component-driven architecture using TypeScript, Nuxt.js, and Node.js with Supabase, delivering mission-critical features that improved operational efficiency and customer engagement

- Developed API endpoints that retrieves and updates order information between Square's e-commerce SDK and Supabase database, processing batch transactions with error handling and real-time status tracking for customer orders
- Implemented real-time event architecture with SSE, enabling instant order updates across all platforms
- Developed an optimized kiosk system that reduced in-person order times by 25% and reduced manual errors
- Created database migration tools with Javascript and SQL, leading to successful database migration

Web Developer (contract)
Greater Boston Snow Removal, Boston MA (Hybrid Remote)
2022 - 2024

Developed business services platform that transformed company into Boston's market leader, growing from 4 to 80+ employees through coordinated dispatch and real-time communications

- Implemented microservices architecture using TypeScript and Node.js, achieving 99.9% uptime during peak snow events with 1,000+ daily transactions
- Built location-based worker matching system using Google Cloud API and MongoDB geospatial indexing reducing dispatch time by 75% and increasing worker efficiency by 40%

Clinical User Specialist Intern
Vecna Healthcare, Burlington MA
2014 - 2015

- Contributed UI/UX improvements to EMR frontend that reduced clinical documentation time by 30%
- Reduced system deployment time by 60% through automation with Ansible, managing configuration and updates across 20+ Ubuntu/Debian clinical workstations

Research Assistant in Vaccine Immunology
Vaccine Immunotherapy Center, Massachusetts General Hospital, Boston MA
2011 - 2013

Performed cutting-edge transplant immunology research that increased survival through novel application of chemokine CXCL12, resulting in published findings in the prestigious American Journal of Transplantation

- Programmed 'Cellbot', an automated cell counting program in Java and ImageJ, improving efficiency and accuracy of data collection Publication:
- Alginate encapsulant incorporating CXCL12 supports long term allo and xenoislet transplantation without systemic immune suppression. *American Journal of Transplantation*, 2015. DOI 10.1111/ajt.13049

EDUCATION

Per Scholas
Software Engineering Track, GPA: 4.0

Completed intensive training in enterprise software development practices and Agile methodologies, achieving top performance (4.0 GPA)

University Of Massachusetts Chan Medical School
M.D. Candidate
2015 - 2018

Won American College of Physicians National Abstract Competition
Publications/Conference Presentations:

- Pretending to Be the Great Pretender. *ACP Impact*, October 2016.
- A Chemokine Protective Shield for Islet Transplantation. *Digestive Disease Interventions*, Boston, MA.

Tufts University
B.Sc. GPA: 3.7
2007 - 2010

Graduated Magna Cum Laude with Thesis Honors

- Published research in Organic and Biomolecular Chemistry on glycosidation automation

PROJECTS

Clinical Decision Support Tools

A collection of medical calculators and decision support tools:

- Built with JavaScript and React with composition based frontend and microservice based backend architecture.
- Implemented evidence-based algorithms for clinical decision making
- Created intuitive user interfaces for healthcare providers
- HR7 and FHIR data integration for data interoperability with medical record systems

Query Builder

Built platform that enables data analysts and developers to execute custom queries and build analytics tools

- Supports PostGreSQL, MySQL, and MongoDB databases
- Created data visualizer for query results
- Reusable and customizable templates for time analysis, table statistics, and data quality queries

Tableau Cleaner

Modern web application designed to clean and process Tableau data files efficiently

- Automated data extraction, cleaning, and transformation for use in ETL pipelines

Placenotes

Location-based social platform leveraging geofencing and real-time notifications, enabling contextual note-taking and message delivery based on users' physical locations

- Full-stack React/Node.js application with GraphQL subscriptions, Express.js, and MongoDB
- Implemented high-performance data architecture with geospatial indexing and real-time updates using MongoDB, REST, and GraphQL
- Built advanced search functionality with text and location-based querying
- Secure JWT authentication with protected routes
- Responsive, mobile-first UI with modern design principles

SKILLS

Typescript/Javascript

Python, Flask, Numpy, Scipy

GraphQL, RESTful web services

SQL, MongoDB, Firebase/Supabase

React, Nuxt, Vue

AWS, EC2, DynamoDB, ElasticBeanstalk

Git, Linux environments, Bash

Red Hat (Linux) Certified System Administrator (RHCSA)

- Managed IT infrastructure as Computer Lab Administrator at Eliot-Pearson Children's School, later earning Red Hat Certified System Administrator (RHCSA) certification

Choate Rosemary Hall

American Invitational Mathematics Examination (AIME) Qualifier

- Recognized for exceptional analytical skills and mathematical modeling, achieving top 5% performance in algorithmic challenges