Jonathan Young

Full Stack Developer rooted in resilience and problem solving skills.

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ABOUT ME

Full Stack Developer with over three years of experience in building web applications and solving business problems with technologies including TypeScript, Node.js, GraphQL, React, and SQL. Previously in medicine, I found myself proficient in combining domain knowledge with programming skills to build tools for myself and others, and switched careers to software development. I'm a quick learner who's not afraid to learn something new and apply it to any given task.

EXPERIENCE

Software Engineer (contract)
2024 - Present

LA Film Lab and Studio, Los Angeles CA

Responsible for building a component-driven order system using TypeScript, Vue.js, and Node.js, delivering features that improved operational efficiency and customer engagement

- Implemented a real-time pub/sub event architecture with SSE and WebSockets, enabling instant order updates across platforms
- Developed RESTful API endpoints that retrieves and updates order information between Square's e-commerce SDK and Supabase database, processing batch transactions and status tracking for customer orders
- Developed optimized kiosks with Vue.js and TypeScript for order entry that reduced in-person order times by 25% and reduced manual errors
- Created database migration tools and stored procedures with Javascript and SQL, leading to successful database migrations

Web Developer (contract)
2022 - 2024

Greater Boston Snow Removal, Boston MA (Hybrid Remote)

Developed features of a business services platform that transformed the company into Boston's market leader 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, improving service time by 40%
- Engineered SMS management functionality with Twilio SDK, allowing for coordinated dispatch and updates
- Deployed system on AWS with ElasticBeanstalk running EC2 instances, maintaining high availability and scalability

Business Intelligence Analyst / Operations Manager
2019 - 2022

- Managed multiple operations teams and implemented route optimizations that reduced operational costs by 25%
- Leveraged Excel, SQL, and Tableau to create dashboards for KPI tracking and business intelligence, driving strategic decision-making
- Applied operational optimization experience to enhance software decisions in subsequent role as Web Developer, creating scalable solutions based on real-world business processes

Clinical User Specialist Intern
2014 - 2015

Vecna Healthcare, Burlington MA

Provided usability improvements to EMR frontend with feedback from training and working with clinical staff, reducing clinical documentation time by 30%

- Collaborated closely with engineering teams to prototype user interfaces with HTML, CSS, and JavaScript that meet the needs of healthcare providers and improve patient care outcomes.

Research Assistant in Vaccine Immunology
2011 - 2013

Vaccine Immunotherapy Center, Massachusetts General Hospital, Boston MA

Performed cutting-edge transplant immunology research, 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

EDUCATION

University Of Massachusetts Chan Medical School
M.D. Candidate
2014 - 2018

Developed clinical decision support tools and won national abstract competition Won American College of Physicians National Abstract Competition
Publications:

- 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. Magna Cum Laude with Thesis Honors
2007 - 2010

- 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

Publication:

Alginate encapsulant incorporating CXCL12 supports long term allo and xenoislet transplantation without systemic immune suppression. *American Journal of Transplantation*, 2015.

PROJECTS BUILT

Query Builder

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

- Developed RESTful APIs for PostgreSQL, MySQL, and MongoDB databases, allowing efficient data retrieval and processing
- Built reusable and customizable templates for time analysis, table statistics, and data quality queries

Clinical Decision Support Tools

A collection of medical calculators and decision support tools:

- Implemented evidence-based algorithms for clinical decision making in Python and Node.js
- Integrated HR7 and FHIR data export, enabling interoperability with medical record systems

Placenotes

Location-based social platform enabling contextual note-taking and message delivery based on users' physical locations

- Engineered a high-performance data architecture with geospatial indexing and real-time updates using MongoDB, REST, and GraphQL
- Built end-to-end JWT authentication across React frontend, Express.js middleware, and API endpoints, allowing secure user access
- Implemented state management with Redux, ensuring smooth user experience and data consistency

SKILLS

Typescript/Javascript, Node.js

Python, NumPy, Pandas

GraphQL, RESTful web services

SQL skill certification, PostgresSQL, MongoDB, Firebase/Supabase

React, Nuxt, Vue

AWS, EC2, DynamoDB, ElasticBeanstalk

Git, Linux environments, Docker, Bash

Red Hat (Linux) Certified System Administrator (RHCSA)

Agile and Lean methodologies, User Stories