

Dominick DeVincenzo

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Professional Summary

Aspiring Software Engineer with over 2 years of experience as a Clinical Research Data Coordinator, demonstrating strong skills in data management, communication, and analytical problem-solving. Currently balancing a full-time role while pursuing a Master of Computer and Information Technology at the University of Pennsylvania. Actively engaged in meaningful side projects in full-stack development and data analysis, showcasing dedication to expanding technical expertise beyond academic coursework. Eager to leverage a unique blend of practical experience and academic knowledge to transition into a software engineering role and contribute to innovative software projects with a positive impact.

Education

University of Pennsylvania <i>Master of Computer and Information Technology</i>	Philadelphia, PA <i>Aug 2025</i>	
* Computer Systems Programming	* Database & Information Systems	* Networked Systems
* Data Structures & Software Design	* Algorithms & Computation	* Intro to Software Development
Georgetown University <i>M.S. in Physiology and Biophysics</i>	Washington, D.C.	
University of Pittsburgh <i>B.S. in Chemistry Minor in Italian Language and Culture</i>	Pittsburgh, PA	

Technical Skills

Languages: Java, Python, C/C++, SQL (PostgreSQL), JavaScript, TypeScript, HTML/CSS
Frameworks: React, Next.js, Node.js, Express.js, JUnit
Developer Tools: Git/GitHub, Docker, MongoDB, GCP, AWS, VS Code, Postman, MakeFile, DataGrip
Libraries: Mongoose, JWT, Axios, pandas, NumPy

Projects

Real Time Messenger <i>TypeScript, Next.js, Node.js, Tailwind, Prisma, MongoDB, NextAuth, Pusher, Cloudinary</i>	2024
<ul style="list-style-type: none">Developed a messaging platform with support for individual and group chats using Pusher for real-time communicationImplemented Google and GitHub authentication with NextAuth, ensuring secure user authentication and managementEnabled database access using Prisma and MongoDB, fetching data within server-side components for optimal performanceDesigned a fully responsive UI with Tailwind, incorporating animations and transition effects for a seamless user experienceIntegrated file and image uploads with Cloudinary CDN, enabling message attachments and file sharingBuilt robust client-side form validation using react-hook-form and server-side error handling with react-toastHandled real-time online/offline user status, message read receipts, and chat room management with Pusher	
BookBase <i>JavaScript, React, Node.js, Express.js, MongoDB, PostgreSQL, AWS RDS</i>	2024
<ul style="list-style-type: none">Developed a full-stack web application for book discovery, providing advanced search and unique insights powered by optimized SQL queries and map-based explorationImplemented user authentication with JWT and Google/FB OAuth, enabling secure login and personalized virtual bookshelvesIntegrated large datasets from Amazon and Goodreads to provide detailed book metadata, user reviews, and geographic insightsDesigned optimized SQL queries to uncover insights such as hidden gems, polarizing books, and age-based popular booksDeveloped an interactive map using React-Leaflet, allowing users to explore reviews geographicallyPreprocessed and normalized over 7 million reviews and 6 million books by standardizing ISBNs, geocoding locations, and resolving schema inconsistencies for seamless PostgreSQL integrationReduced query execution times by 80% through restructuring, precomputing, and indexing for high-efficiency database operations	
OpenDataPhilly Analysis <i>Java, JSON.simple, CSV, Data Analysis</i>	2024
<ul style="list-style-type: none">Engineered a Java application to efficiently process and analyze large-scale datasets (10,000+ records) from Philadelphia's OpenDataPhilly portal, including COVID-19 statistics, property values, and population demographicsDeveloped robust CSV and JSON parsers using JSON.simple, effectively handling real-world data inconsistencies to ensure accurate and reliable data processingDesigned a menu-driven CLI for dynamic querying and custom statistical analysis, improving data accessibilityOptimized performance by applying software design patterns (Singleton, Strategy) and memoization techniques - reducing query processing times by 60% for repeated data requests	

Experience

Data Coordinator National Capital Area Minority/Underserved NCORP <i>Georgetown University Medical Center</i>	Feb 2022 – Present Washington D.C.
<ul style="list-style-type: none">Effectively coordinate patients and manage data for six oncology studies totaling over 100 subjects; ensuring timely and accurate data collection, entry, and verification in accordance with protocol requirement and regulatory standardsDeveloped data quality assurance protocols, playing a key role in maintaining the credibility and reliability of research outcomesOptimize data and patient management processes by implementing best practices and emerging technologies, enhancing efficiency and data integrity	