Joseph A. Dattilo

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EDUCATION

University of Pennsylvania, School of Engineering & Applied Science – Philadelphia, PA   **August 2022 – May 2026**

Bachelor of Science in Computer Science, Minor in Music | Cumulative GPA: 3.61/4.00

Relevant Coursework: Data Structures, Algorithms, Programming Language and Techniques, Automata/Computability/Complexity, Calculus, Linear Algebra, Probability, Computer Architecture, Computer Graphics, Databases, Discrete Math

TECHNICAL SKILLS

Languages: Java (3+ yrs experience), Javascript/HTML/CSS (3+ yrs experience), Python (2+ yrs experience), SQL (2+ years experience), Typescript (1+ yrs experience) OCaml (proficient), C (Proficient), C++ (Proficient)

Frameworks: React (3+ yrs experience), Django REST (2+ yrs experience), Flask (2+ yrs experience), React Native (proficient), NodeJs (proficient), Bootstrap (proficient), Tailwind (proficient)

Tools: Git (3+ yrs experience), Databases (2+ yrs experience w/ Sqlite3, PostgreSQL, MongoDB, Firebase/Firestore, Azure CosmoDB), Linux/Unix (2+ yrs experience), Microsoft Azure (proficient), Pandas(proficient)

PROFESSIONAL EXPERIENCE

Karpool | Lead Developer | Cape Town, South Africa (remote)   **September 2023 – February 2024**
- Refactored the application to reduce the size of the codebase by an estimated 50% increasing maintainability
- Learned industry standard practices in planning app flows, location tracking to a 5ft radius, and messaging functionality features. (React Native, Microsoft Azure, Mongodb)

IXperience | Software Engineering Intern | Cape Town, South Africa   **July 2023 – August 2023**
- Participated in a 2 week bootcamp and industry exploration program before being paired with Karpool for a 4 week internship
- Built the foundation of a ride sharing application being developed for commercial use in South Africa
- Worked with 6 developers to achieve a 50% completion of the MVP in a month gaining experience with modern frameworks, Figma, and project planning (React Native, Microsoft Azure, Mongodb, Firebase, React, NodeJs, Tailwind, Bootstrap)

PennApps | Lead Backend Engineer | Philadelphia, PA   **February 2023 – Present**
- Developed Django REST API for an application portal receiving over 700 applicants a year
- Implemented API endpoints to handle registration/login, email validation, saving application data, and status updates
- Developed Slack application to manage the hackathon Slack of 500+ users (Flask, AWS Suite, Django REST, React, Slack)

PROJECTS

Game Platform | Developer | Nashville, TN   **December 2022 – January 2023**
- Created a flask web app where users can create and manage games of assassin, reducing the time to organize a game by 90%
- Explored user website interaction by implementing routes for authentication, invite systems, user permissions, game functionality, and a minimalistic UI (Flask, Jinja2, Sqlite3, HTML/CSS)

Predicting NASDAQ Closing Cross Price Movements | Developer | University of Pennsylvania   **October 2023 – December 2023**
- Analyzed kaggle financial time series data, and implemented 20 engineered technical indicators for model training.
- Designed LSTM neural network to predict forward price movements, achieving a 5.5 MAE through meticulous hyperparameter tuning. (TensorFlow, Keras, Pandas)

MUSIC

Cellophony | Drummer and Lead Organizer | Nashville, TN   **March 2021**
- Generated over 15k for the W.O Smith School, managed lights/sound, auditions, sponsorship/outreach, and rehearsals

Mask and Wig Band | Drummer | Philadelphia, PA   **August 2022 - Present**
- Play with a theater company for fall show (1 week), annual production (3 months), and additional gigs throughout Philly

Penn Jazz Combos | Drummer | Philadelphia, PA   **January 2022 - Present**