# Sarthak Patipati

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# EDUCATION

# University of Illinois at Chicago

Chicago, IL

Bachelor of Science in Computer Science

Dec. 2023

# TECHNICAL SKILLS

Languages: Java, JavaScript, TypeScript, Python, HTML5, CSS3 Frameworks: Angular, Spring, Spring Boot, Node.js, Express.js

Libraries: React, Redux, jQuery, Maven, npm, JPA, JDBC, webpack, Babel

Software: VSCode, Git, GitHub, cmder, pgAdmin, Postman

Databases: PostgreSQL

Operating Systems: macOS, Windows

### EXPERIENCE

## FastTrack Developer

Feb. 2024 – Present

Cook Systems

Memphis, TN

- Built 4+ full-stack apps using Angular, Spring Boot, and Node.js, emphasizing operational efficiency and security
- Designed 5+ RESTful services, focused on data-centric and scalable architecture, meeting varied application needs
- Refined database design and management using PostgreSQL, ensuring robust data structure and ideal performance
- Improved user experience in 3+ applications by implementing advanced state management using RxJS and NgRx
- Streamlined authentication and testing via Postman and pgAdmin, optimizing API reliability and user interaction

#### Research Assistant

Jun. 2022 – Dec. 2023

Complex and Sustainable Urban Networks Laboratory

Chicago, IL

- Developed visual models by leading a key project studying energy consumption use in 30,000+ residential accounts
- Evaluated urban planning using machine learning techniques with 40+ energy predictors across 50+ land-use types
- Optimized RandomForest and XGBoost performance with hyperparameter tuning, augmenting predictive accuracy
- $\bullet \ \ \text{Improved sentiment analysis accuracy from } 63\% \ \ \text{to } 84\% \ \ \text{through labeling training datasets for social media events}$
- Co-authored and published a study analyzing telecommuting trends with sentiment analysis of over 150,000 tweets

#### Projects

SpaceFlow | Java, TypeScript, JavaScript, Angular, Spring Boot, PostgreSQL, Postman, Git, Maven Apr. 2024

- Built a work management platform for 3+ companies, integrating announcements, teams, projects, and user stats
- $\bullet$  Enhanced security with authentication methods for 15+ users, protecting critical data across multiple access levels
- Designed a PostgreSQL database for reliable information storage, ensuring smooth operation and data consistency

## Who's Who | TypeScript, Angular, Spotify API, OAuth, Figma, Git, VSCode

Mar. 2024

- Elevated user experience with an Angular-based music game, enabling quick access to 50+ songs via Spotify's API
- Ensured versatility and peak performance with Node.js, enabling diverse gameplay modes and 10+ genre selections
- Produced a scalable MVP highlighting 5+ core features, using Figma for design, poised for easy future expansions

Dev Duel | TypeScript, JavaScript, Node.js, Express, Angular, GitHub API, Axios, Git, VSCode Mar. 2024

- Visualized 500+ GitHub profiles in a Angular-based app, leveraging GitHub's API for comprehensive user insights
- Elevated profile analytics by creating 3+ custom endpoints via Node.js using Express, with tailored titles and stats
- Facilitated user-driven profile search and comparison with a web client using Joi for error handling and validation

## X API | Java, Spring Boot, JPA, PostgreSQL, pgAdmin, Postman, Git, VSCode, Maven

Feb. 202

- Crafted a REST API with 20+ endpoints for social media content, using Spring Boot and JPA for request handling
- Ensured efficient data management by building a well-structured and highly scalable PostgreSQL database schema
- Increased API reliability via rigorous Postman testing, validating 330+ HTTP requests for enhanced performance

#### Publications

[1] J. Acosta-Sequeda, M. Mohammadi, S. **Patipati**, A. Mohammadian, and S. Derrible. "Estimating Telecommuting Rates in the US Using Twitter Sentiment Analysis". In: (Feb. 2024). DOI: 10.21203/rs.3.rs-3879832/v1.