

Jonathan T. Sudarpo

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Education:

Northeastern University, Boston, MA

Khoury College of Computer Sciences

B.S. in Computer Science

Relevant Courses: Object-Oriented Design, Algorithms and Data, Programming in C++, Discrete Structures, Fundamentals of Computer Science, Fundamentals of Digital Design and Computer Organization, Computer Systems, Logic and Computation, Machine Learning and Data Mining, Theory of Computation, Natural Language Processing, Artificial Intelligence, and Fundamentals of Software Engineering

Expected Graduation: July 2025

GPA: 3.78/4.0

Dean's List

Skills:

Languages: Java | C++ | Typescript | JavaScript | Python | React | Scheme | HTML | CSS | Swift | C

Technologies: Git | Github | Bash Terminal | Linux | REST API | AWS | JUnit | Relational Databases

Software: Express | Node.js | SQL | PostgreSQL | Firebase | Figma | Docker | Supabase | Web3.js

Experience:

State Street, Network as a Service Software Engineering Coop, Boston, MA

July 2024 - Present

Telkomsel, Software Engineering Coop, Jakarta, Indonesia

August - December 2023

- Leveraged Streamlit and a proprietary AI model to build an AI application that converted natural language into SQL queries, exposing interaction with a Web UI.
 - Developed a Python-based chatbot leveraging natural language processing techniques to understand and respond to user queries, effectively processing over 1000 queries.
 - Designed and deployed a Natural Language Query AI pipeline, establishing a connection to the PostgreSQL database to execute queries and provide data to over 50 staff.
 - Test the chatbot's functionalities and user experience with a 50% improvement in usability.
- Led agile practices across multiple branches, coordinating cross-functional teams to achieve project milestones. Facilitated sprint planning, stand-ups, and retrospectives, ensuring global alignment with strategic goals.
- Utilized Folium for advanced geospatial analysis, creating dynamic maps and visualizing points of interest. Applied GIS (Geographic Information Systems) techniques to interpret geographic data, supporting strategic business decisions through rich, interactive data visualizations.

Beemarket.id, Software Engineer, Jakarta, Indonesia

September 2020 - June 2021

- Engineered a robust JavaScript and Firebase user authentication system, enhancing security and user experience for 100+ users.
- Addressed and resolved 20+ website bugs, incorporating customer feedback to enhance user experience for consumers and vendors.
- Led weekly brainstorming sessions with the marketing team to innovate strategies for Instagram advertising

Projects:

Husksheets

TypeScript | June 2024

- Developed a distributed collaborative spreadsheet application using TypeScript, Express, and Supabase, featuring real-time data synchronization, dynamic UI for user-role-specific interactions, and a server with persistent storage.
- Engineered a comprehensive REST API with custom authentication and 9 endpoints for publisher-subscriber interactions.
- Implemented a formula parser to support spreadsheet functions including arithmetic operands and conditional logic (e.g. IF, SUM, MIN, MAX, AVG, CONCAT).
- Used Docker for consistent deployment and built a comprehensive test suite using Jest.

Volumint

JavaScript and Alchemy | April 2024

- Created a decentralized community currency platform with React.js, JavaScript, and Firebase, winning *Most Socially Impactful* and *Polygon Technology* Award at ETHBoston Hackathon.
- Designed and implemented upgradable smart contracts for secure bounties and transactions, deploying our cryptocurrency on the Polygon zkEVM testnet, utilizing Alchemy for seamless blockchain integration, and automated transaction handling.
- Integrated web3.js for blockchain interactions and Truffle for contract development and tests.
- Enabled local organizations and charities to post bounties for community engagement (e.g., volunteering, ocean cleanup), rewarding users with tradable community coins. Handled user transactions to trade currency for merchandise and discounts provided by local businesses, driving clientells to support these businesses.

AI4Career

JavaScript | March 2024

- Spearheaded the development of an AI-driven career matching platform akin to "Bumble for careers" using React.js, Node.js, Express.js, and Firebase, securing 2nd place at the innovAIte AINU x BAIC Hackathon.
- Architected REST API functionalities with JWT-based authentication, dynamic profile management, and AI-powered recommendations using zero-shot prompt tuning with a large language model.