

Diego A. Taveras Rivera

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EDUCATION

University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Science

Graduation Date: May 2025

GPA: 3.73/4.00

Relevant coursework: Algorithms & Models of Computation, Algorithms for IOT and Data Science, Applied Machine Learning, System Programming, Database Systems, Numerical Methods, Data Structures, Computer Architecture, Software Design, Linear Algebra, Multivariable Calculus, Physics: Elec & Mag

HONORS

Dean's List

Fall & Spring 2022

Computer Science Visionary Scholarship

2021-2025

James Scholar of Grainger Engineering

Spring 2022

Presidential Scholars Program Candidate

2021

EXPERIENCE

Software Engineer Intern

September 2023 – present

AbbVie

- Engineered a reactive web application that allows users to submit, view, like, and comment on other user's company improvement posts.
- Utilized Outsystems, custom JavaScript components, and CSS styling to design and develop the forum page, and an application admin page that enables viewing and archiving posts, and exporting post data as a spreadsheet.
- Wrote SQL queries to create dynamic filters and sort functionality.

Software Developer Intern

May-Aug 2023

Information Trust Institute

- Used various Python libraries to develop a GUI that streamlines OT-network security policy creation and validation by converting user input to XML format. Enabled users to customize policy parameters and upload their created policies to a shared JSON library.
- Presented the app to company members and produced detailed documentation on features and usage.
- Expanded the GUI features with an Angular web application and experimented with web-based collaboration for users.

Course Assistant in Introductory Computer Science Course (CS124)

Spring 2022

University of Illinois

- Teach fundamental topics in Java and Kotlin through virtual office hours and course forum.
 - Develop recorded audiovisual code walkthroughs to teach students in both programming languages.
 - Help students with Android development machine projects in Android Studio.
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PROJECTS

Spotify Playlist Analyzer (Java Spring Boot, React.js, AWS) [Live at dataveras.net/projects]

- Designed and developed a web application that utilizes Spotify Web API to provide users with the audio features of their own playlists and individual songs. This data is presented dynamically using Chart.js.
- Developed a Spring Boot REST API which conducts OAuth2.0 authorized calls to Spotify Web API.
- Created, managed, and tested this API using AWS Lambda, API Gateway, and AWS SAM, allowing for efficient and cost-effective deployment and hosting. Implemented secure management of admin secrets with AWS Secrets Manager. Utilized a DynamoDB (NoSQL) database for user token persistence.

“Trendify” (React.js, Node.js, Python, GCP)

- Engineered a full-stack application in React.js and Node.js that allows users to explore trending Youtube video tags to optimize their discoverability. Implemented search functionality with tunable search parameters.
- Users can filter search results by video category or geographical region. Used GCP to host the MySQL database.
- Wrote Python scripts to parse 200,000+ row dataset to model as relational tables.

ARC Capacity Viewer (Django, React.js, SQL)

- Django development of views, data models, and app encapsulation.
- Leveraged REST APIs for effective data transfer between frontend and backend components.
- MySQL for modeling capacity data for live capacity feeds for sections of UIUC's ARC facility.

Reddit Visualizer (C++, Catch2)

- Parsed large dataset to be modeled as a graph data structure.
- Implemented graph algorithms to find the shortest path between reddit posts through hyperlinks.
- Used graph visualization to display the relationships in centrality (betweenness, closeness) within posts.

SKILLS

Technical

- Programming Languages: Python, C++, C, Java, JavaScript, SQL, Kotlin, UNIX, Bash, HTML, XML
- Tools/Frameworks: React.js, Node.js, Git, Docker, AWS, Django, Angular, Android, MongoDB, Tkinter, NumPy
- Other: Bilingual (English/Spanish), music theory, nutrition and fitness