

Ludwig Lechtreck

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EDUCATION

Georgia Institute of Technology
Bachelor of Science in Computer Science
GPA: 4.0

Atlanta, GA
Aug. 2022 – Dec. 2024

EXPERIENCE

Software Engineering Intern
Factory Automation Systems

May 2023 – August 2023
Atlanta, Georgia

- Developed middleware scripts to transform order data stored in Microsoft SQL Server into data that could be displayed on an HMI
- Designed and implemented an internal asset management system using Winform and C# that improved employee efficiency in managing company assets
- Deployed testing programs for SCADA systems and HMI screens to PLCs

PROJECTS

Frogger | *Java, JUNIT, Android Studio, Git*

Jan 2023 – May 2023

- Applied the Agile software development methodology to a semester-long mobile application project
- Utilized draw.io to successfully model UML designs while collaborating with a team of 5
- Gathered and documented client functional and non functional requirements to produce a detailed design
- Implemented the project in Java using Android Studio and Github for version control

PowerMap | *Python, JavaScript, Flask, React, GoogleMaps API, Google Cloud*

Feb. 2023 – Feb. 2023

- Worked with one other team member to develop a power estimation web app for a hack-a-thon, won first place in the Sustainability Category
- Utilized React on the frontend to display the selected building on a map and charts that estimate its power consumption across several categories
- Implemented an ensemble regression model to accurately estimate the power consumption of a building using training data from Kaggle
- Used GCP to host our backend written using Python and Flask

SnakeJS | *JavaScript, NodeJS, Express, Heroku, MongoDB, Express*

May 2022 – June 2022

- Used Javascript, HTML, and CSS to create a front-end for the site
- Created a database using MongoDB Atlas to store user information
- Implemented a user authentication method with Passport and bcrypt
- Deployed and hosted the site on Heroku

Tomato AI | *Python, PIL, Numpy*

Jan. 2022 – May 2022

- Developed components of a Convolutional Neural Network from scratch in Python and Numpy
- Utilized custom CNN to classify images based on HSV values
- Achieved 95% resulting accuracy
- Applied the same framework to the UCI Iris Data set with a 93% accuracy

TECHNICAL SKILLS

Languages: Java, Python, VB.NET, SQL (MSSS), JavaScript, HTML/CSS, C#

Frameworks: React, Node.js, Flask, JUnit, Svelte, Express, Winform, .NET

Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Visual Studio, IntelliJ, WonderWare, Google Maps API, RS Logix

Libraries: pandas, NumPy, Matplotlib, PIL, scikit-learn