

# Ayon Bhowmick

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**Objective:** Seeking a summer internship where I can apply my knowledge of programming and problem-solving skills to real-world challenges, and gain valuable hands-on experience in the industry.

## Education

**Lehigh University**, Bethlehem PA — *Computer Science B.S., Data Science minor*

August 2020 - Expected Graduation: May 2024

Relevant Coursework: Introduction to Programming, Programming and Data Structures, System Software, Software Engineering, Programming Languages, Computer Organization and Architecture, Linear Methods, Foundations of Discrete Structures and Algorithms, Introduction to Data Science, Machine Learning

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## Skills

**Programming Languages:** Python, Java, Javascript/Typescript, C, Rust, R, x86 Assembly, SQL

**Technologies/Frameworks/Libraries:** PyTorch, NumPy, OpenCV, Machine Learning, Computer Vision, React.js, Next.js, Material UI library, Node.js, HTML5/CSS, Sass, Heroku cloud platform, Git (GitHub, Bitbucket, and GitLab), Trello, Agile development, Software design pattern, React-Native Javascript framework, Expo universal native apps platform, Electron Javascript framework, Tk GUI (Tkinter), Redis, PostgreSQL, REST API, Spark for Java, Visual Studio Code, Postman, Vim, Selenium, GNU Project Debugger, Maven

**Soft Skills:** Bengali, Creative problem solving, Communication and presentation, Quick learner, Inquisitive, Organized and neat

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## Experience and Awards

**Computer Science Department Grader**, Bethlehem PA August 2022 - Present

- Conducted meetings with students in the Software Engineering class to assist with the debugging process.
- Graded students' project submissions, codebase, and final exam.

**HackHolyoke Hackathon Best Sustainability Hack** November 2021

- Produced a web application in 24 hours
- The app stores the expiration dates of the food that the user had bought so that the application can remind the user when the food will expire. This is done in an effort to help prevent food waste.

**Hepatology Laboratory Intern**, Los Angeles CA June 2019 - August 2019

- Conducted experimentation on the connection between Hyaluronan production and the development of liver fibrosis.
  - Worked with a team to develop a presentation to display findings.
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## Projects

**MNIST Classification Neural Network without ML Libraries** December 2022

- Developed a multilayer perceptron neural network to classify handwritten digits without using any machine learning libraries. The model had an accuracy of 0.96.
- The model was trained on the MNIST dataset and used NumPy for linear algebra

**Genre Classification** November - December 2022

- Classified songs into 6 genres using features provided by the Spotify API. The model had accuracy of 0.51.
- Used a random forest model made in R.

**Anonymize** October 2022

- Implemented a real-time face blurring software with Gaussian blur, pixelation and blackout methods of obscuration
- Written in Python and used OpenCV for facial detection and different masking effects

**Violet Light** February 2022

- Developed a mobile app that enables users to check in with their friends while at parties. The app was created in a single day for the HackViolet Hackathon
- Built using React-Native with a backend made with Next.js and Redis

**The Buzz** September - December 2021

- Created a full stack social media app including web and mobile frontends, server backend, and admin cli.
- Backend was made in Java using the Spark framework and used a PostgreSQL database. Web and mobile front-ends were written in Typescript using React and React-Native respectively with Material UI.
- Developed with a 5 person team using Scrum methodology