Batu Engin

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Education

University of Michigan — Ann Arbor, MI

Bachelor of Science in Engineering in Computer Science — *Expected May 2025*

- GPA: 3.98
- Relevant Coursework: Web Systems, Data Structures and Algorithms, Computer Organization, Foundations of Computer Science, Deep Learning, Discrete Mathematics, Multivariable Calculus, Linear Algebra, Introduction to Probability and Statistics
- Awards: James B. Angell Scholar; William J. Branstrom Freshman Prize; Dean's List Fall '22, Winter '23, Fall '23

Experience

AI Marketing and Automation Intern — Jan. 2024 – Present

WorkOptional.AI — *Ann Arbor, MI*

- Streamlined the automation of processing long videos to short ones utilizing **Selenium** and the Google Drive API.
- Leveraged the **Gmail API** to scrape emails, organized the data using Pandas and exported it to Google Sheets.
- Explored the viability of multiple AI platforms for the integration of a chatbot to various communication services.

Machine Learning Intern — June 2023 – August 2023

Habber Tec — *Madrid, Spain*

- Engineered a time series model using **Sci-kit Learn** in Python to predict a transformer's failure probability.
- Applied feature importance, data filtering, and aggregation with **Pandas**, heightening the accuracy up to **92%**.
- Constructed a back-end server using **Django** for communication between a LLM virtual assistant and employees.

Machine Learning and Computer Vision Intern — June 2021 – Aug. 2021

Mad Street Den — *Redwood City, CA*

- Created a CNN classifier using **PyTorch**, trained on web-scraped images of clothes to categorize clothing items and provide labels in a database of 300,000 images.
- Built an intelligent search engine, utilizing Sci-kit Learn, for classifying search text into clothing labels.
- Capitalized on **Cosine Similarity** before classifying the text to enhance the accuracy of items retrieved upon search.

Projects

Instagram Clone | *Python, Flask, SQLite, Jinja, AWS* — January 2024

- Developed a full-stack clone of Instagram using **Flask** serving as the back-end with **Jinja** as the templating tool.
- Organized a database schema for user activity and queried to serve data from the back-end using **SQLite**.
- Built the authentication with cookies, supporting logging in, signing up, deleting users and updating profile.
- Deployed the web application to **AWS**.

Image Colorization | *Python, Tensorflow, Numpy, Pandas* — Jan. 2023 – Apr. 2023

- Created an application utilizing CNNs, through **TensorFlow**, to colorize black and white images.
- **Leveraged GANs**, assembling the Generator and Discriminator classifiers to provide a more exact solution.
- Collaborated with team members and leaders, modifying technical parameters of the model, for instance, the batch sizes and epochs to improve the accuracy of colorization by **20%**.

Technical Skills

Languages: Python, C++, C, HTML, CSS, Javascript, MATLAB, SQL
Frameworks: Tensorflow, PyTorch, Sci-kit Learn, React, Express.js, Django, Flask, Jinja
Developer Tools: Git, Figma, VS Code, AWS
Spoken Languages: Spanish, Turkish

Organizations

Quantitative Investment Society | *Quantitative Researcher* — Nov. 2023 – Present

Michigan Data Science Team | *Software and Machine Learning Engineer* — Jan. 2023 – Present