DEFNE DEDA

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EDUCATION

Northwestern University: Weinberg College of Arts and Sciences

Evanston, IL

June 2025

Bachelor of Arts Degree, Computer Science | Minor in Psychology, Segal Design Certificate

Major GPA: 3.9/4.0 | Cumulative GPA: 3.8/4.0

SKILLS

- **Technical Languages/ Frameworks:** Python, R, JavaScript, HTML, CSS, C, C++, Unix, Google Colab, FastAPI, Git.
- **Programs:** Photoshop, Sketchbook Pro, Canva, Illustrator, Adobe Express, Figma, Procreate.
- Languages: Turkish (Native), English (Fluent), Spanish (Conversational).

EXPERIENCE

Novus Writer | Technical Intern | Boston, MA

August 2023- September 2023

- Interned at Novus Writer, applying AI for tailored content across diverse clients.
- Built a sentiment analysis tool using LSTM networks, trained on movie reviews from the Stanford Sentiment Treebank, achieving 99.75% accuracy to discern positive and negative sentiments.
- Collaborated with colleagues to quantize large language models using BitsAndBytes and Hugging Face, reducing model size without loss of performance; integrated models like Falcon and Llama, using Google Colab.

Northwestern | Undergraduate Teaching Assistant | Evanston, IL | COMP SCI 110 & 214

September 2022 - Present

- Advised students in 2 programming classes about the fundamentals of computer programming in Python as well as data structures and algorithms with DSSL2.
- Held weekly office hours open to 270 students to educate students on program design, construction, and testing.

VIS Technology | Quality Assurance Tester | Istanbul, Turkey

August 2022

- Designed, developed, and implemented manual quality assurance tests to maintain a business software tool.
- Internalized customer expectations by employing detail-oriented system analysis finding bugs.

PROJECTS

Text Completion Web Application Development

August 2023

- Developed a FastAPI web application leveraging a pretrained GPT-2 model from the transformers library to offer a text completion API, hosted through a GitHub repository.
- Implemented a frontend utilizing HTML, JavaScript, and Bootstrap, facilitating user prompt submissions and displaying the GPT-2 generated continuations on a dynamically styled webpage, ensuring cross-origin resource sharing compliance.

White Space Product Development Challenge

April 2023

- Conducted extensive research on the challenges surrounding the use of slings in hospitals, identifying issues for nurses, insurance companies, and bariatric patients themselves.
- Developed a new bariatric sling that addressed the challenges, winning third place overall and a \$1000 prize.

Traffic Dynamics Museum Exhibit

May 2023 - June 2023

- Executed in-depth research on the complexity of traffic dynamics and the implications of individual driver decisions, culminating in the design of an interactive exhibit aimed at enhancing traffic and environmental awareness.
- Utilized Tangible User Interfaces and JavaScript on Microsoft MakeCode to create unique car behavior profiles symbolized through varied emotional states. Enabled users to experiment with these behaviors, observing their impacts on traffic flow.

Cosmic Couture Game Development

May 2023 - June 2023

- Led the design, programming, and art creation for "Cosmic Couture," an interactive, alien-themed dress-up game developed as a class project. The game allowed players to personalize alien characters through a selection of unique outfits.
- Utilized C++ for game development, emphasizing an object-oriented programming approach to efficiently manage different game components such as character customization and player inputs.

LEADERSHIP ACTIVITIES

Mayfest Productions | Head of Promotions

October 2020 - Present

- Created a brand book featuring effective brand management strategies for a music festival of over 12,000 attendees.
- Analyzed engagement data and thus implemented various social media strategies such as interactive posts that resulted in 75% more engagement in the short term and 260% more engagement in the long term.
- Collaborated with InkTank Merchandise to design clothing items to be sold, which generated 10k\$ revenue.

Responsible AI Student Organization, RAISO | Vice President of Finance

January 2022 – June 2022

- Oversaw the transfer of funds from the Computer Science Department to the Student Organization Finance Office.
- Managed the budget of 7.6k\$ by allocating it to all committees and ensuring reimbursements were received.
- Consulted with the executive team to organize weekly education discussions on topics related to Artificial Intelligence Ethics and ~8 professional development and networking events.