

Barnabas Novak

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EDUCATION

California State University Los Angeles

Expected Graduation: May 2025

Bachelors of Science in Computer Science

SKILLS

Languages **Proficient** Java(3yrs) · Python(2yrs) **Intermediate** Kotlin(1yrs) · C++(2yrs) · SQL(1yrs) · JavaScript(1yrs) · HTML(2yrs)

Software VSCode · MatLab · Unity · Final Cut Pro · Canva · JupyterNotebook · Vercel · Bootstrap · Google Colab · Azure

EXPERIENCE

Battery Workforce Challenge Charging Eagles - President

Sep 2023 - Present

Battery Workforce Challenge Charging Eagles - Vocational Liaison

Sep 2024 - Present

California State University Los Angeles

Los Angeles, CA

- Led communications with project managers, faculty, sponsors, teams, and vocational partners
- Fostered teamwork, promoting equal participation across diverse student disciplines
- The Battery Workforce Challenge is a three-year competition where students design, build, and test EV battery packs, gaining essential skills for future careers.

Co-Founder Hungarian Young Professional Engagement Network (HYPE)

Jun 2024 - Present

Hungarian American Coalition

United States

- Expanding the Hungarian American Coalition's leadership initiatives for Hungarian professionals in the U.S

Software Engineering Fellow

Jun 2024 - Present

Headstarter

New York, NY

- Spearheaded cloud workshops on compute/storage/databases as part of 200 ambassadors nationwide
- Coached by Google Machine Learning, Google Kubernetes, Two Sigma, Tesla, Figma and Citadel Engineers
- Building machine learning, ai-engineering and full-stack projects in fast-paced software team environments
- Developed 5+ neural networks in Python, apps in Typescript on Vercel with dev and production environments

Optimization & Simulation Engineering Intern

Aug 2024 - Aug 2024

Audi & University of Győr

Győr, Hungary

- Optimizations for powertrain systems using C++ and MATLAB to automate data analysis and simulation processing
- Project Manager and team won the Best ESG concept award

NOTABLE PROJECTS

US-Bank Churn Prediction | Solo Project (~30 hours) - <https://github.com/BarnabasNovak1/ChurnPrediction>

Oct 2024

- Used 30k+ data set, Llama 3.1b, Groq and Vercel to evaluate accuracy of predicting when banking customer quits
- Created an end-to-end solution complete with sending automated personalized email to banking customer based on feature engineering, normalization, model training, evaluating and hyperparameter tuning across 5 LLM models

Brain Tumor Classification | Solo Project (~20 hours) - <https://github.com/BarnabasNovak1/Brain-Tumor-Classification-with-Neural-Networks>

Nov 2024

- Used neural networks in Python to classify 1000 MRI scans into 3 types of possible brain diseases with custom model
- Generated multimodal MRI reports for neurosurgeons in under 200MS after image classification, construction & training

Neumann Series Website | Solo Project (~30 hours) - <https://neumannseries.com>

Dec 2024

- Part of the organizer team and developed conference website from scratch to fully functioning website using HTML, CSS, BootstrapZ

Discord Clone | Solo Project (~30 hours) - <https://github.com/BarnabasNovak1/chatstarter>

Oct 2024

- Used WebRTC, React and Vercel to deploy a clone of real-time chat and video functionality of popular communication service
- Built a production backend service that handles upto 10 real-time conversations processing 100GB of video every second

CareerSwipes | Team Project (~50 hours) - <https://github.com/mehmoodosman/CareerplannrAI>

Sep 2024

- Designed an AI-based recommendation system for career reviews and recommendations using Python and web scraping
- Frontend fully developed solo in accordance with team's ideas and colors

Activities

HungarianHub | Publishing blogs, connecting with Hungarian readers not just in the US but all over the world

Dec 2020 - Present

New York Marathon Finisher | Youngest Hungarian ever to complete

Nov 2021

Tegball | 138th in Men's Doubles World Ranking

Certificates

Mendix | Certified in 2024 - Mendix Rapid Developer, Infoblox | 2024-2026 - Infoblox Qualified NIOS DDI Operator,

dSpace | Certified in 2023 - XiL Simulations and HIL Development, MathWorks | Certified in 2023 - Matlab Onramp Certificate

WorldQuant University | Certified in 2025 - Applied Data Science Lab Program