



TELMEN BAYARBAATAR

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EDUCATION

University of Maryland

B.S. in Computer Science

College Park, MD

Expected December 2027

- **Relevant Coursework:** Data Structures & Algorithms, Statistics, Discrete Structures, Computer Systems
- **Certifications:** Machine Learning Specialization by Stanford, AI4ALL Ignite Fellow, Cognizant-Elevate

EXPERIENCE

iCoSMoS Lab @ University of Maryland

January 2026

Undergraduate Research Assistant (Advisor: Dr. Nirupam Roy)

- Incoming Spring 2026...

Together For You, Inc.

Aug. 2025 - Present

Product Engineering Intern

- Co-led **UI/UX** design and **React Native** development for Havii mobile app, from concept to demo-ready application
- Developed **3** core mobile features (onboarding, profiles, notifications) with **Redux**, **React Navigation**, and **Axios**.
- Iterated through **5+** **Figma** prototypes, achieving **92%** positive feedback rate from survey of **200+** students.

Montgomery College

Aug. 2024 – May 2025

Undergraduate Research Assistant (Advisor: Dr. Zhou Dong)

- Developed Nearest-Neighbor-Nim calculator in **Java/Javascript**, processing **600K+** game configurations states.
- Built recursive **MEX** algorithm with state-space pruning, achieving **37.5%** reduction in redundant computations.
- Identified losing position pattern for **3-vertex** graph, presented at **2** conferences and published in **CURM** report.

TSESSEBE Technologies

Nov. 2024 – Feb. 2025

Software Development Intern

- Enhanced backend APIs and authentication with **Express.js**, and **Firebase Auth**, supporting **3k+** workshop users.
- Integrated **Stripe API** into a **RESTful** Express backend to support seamless premium workshop payments.
- Used **GitLab** for version control and **CI/CD**, contributing to automated testing and smoother release cycles.

PROJECTS

[Forkcast.fit - Best in Sustainability](#) | [React.js](#), [Express.js](#), [PostgreSQL](#), [Clerk](#) | [Dingman Luby Track Pitch Competition'25](#)

- Developed **FastAPI** pipeline to preprocess over **3M+** rows of historical data, feeding ensemble learning models.
- Integrated **BullMQ** to offload DB-heavy report generation, reducing API response time from **40s** → **200ms**.

[TDA + N-BEATS Forecasting Model](#) | [Python](#), [Pytorch](#), [Ripser](#), [yfinance](#), [Numpy](#), [Pandas](#), [Matplotlib](#) | [AI4ALL'25](#)

- Led **5-person** team to improve **N-BEATS** model with **Topological Data Analysis**, employing persistent homology
- Achieved **8%** average error reduction across **RMSE**, **MAE**, and **MAPE**, outperforming baseline architecture

[ImageToCalendar](#) | [Google Calendar API](#), [OpenAI API](#), [React.js](#), [Node.js](#), [Tesseract.js](#), [Supabase](#)

- Built using **Tesseract.js**, and **OpenAI API** to extract event details from **JPG** or **PNG** and sync with Google Calendar.
- Integrated **Supabase** auth with drag-and-drop file upload system featuring OCR and AI-powered data parsing

LEADERSHIP

Raptors Who Code

Nov. 2024 - May 2025

ACM Chapter & Club President

- Hosted MC's inaugural hackathon with **150+ registrations**; recognized as **The Best Club Event of the Year**.
- Organized all aspects of planning, sponsorship outreach, and catering; received a total of **\$3,000** in funding.

TECHNICAL SKILLS

Languages: Javascript, Typescript, Python, Java, C/C++ , SQL

Tools: Git, Docker, AWS (EC2, S3), Vercel, Figma, Jira, Stripe, Clerk, Firebase, Postman, Jupyter Notebook

DB & Backend Technologies: MongoDB, Node.js, Express.js, PostgreSQL, Prisma, Supabase

Python libraries & Tools: TensorFlow, Pytorch, Ripser, Matplotlib, NumPy, Pandas, ScikitLearn