Dom Ellis

925-708-9893 | dellisuo@gmail.com | linkedin.com/in/dominic-ellis-b63ab8238 | github.com/dellis2cs | Portfolio

EDUCATION

University of Oregon   Eugene, OR
Bachelor of Science in Computer Science   *Sep. 2022 – June 2026*
- **Relevant Coursework:** Computer Organization, Data Structures, Algorithms, Unix and C++
- **Awards:** Deans List , Mind's Move Mountains Scholarship
- **GPA:** 3.5

EXPERIENCE

AI Research Intern   Apr 2024 – Present
Grok AI   *San Francisco, CA*
- Contributed to an emerging startup focused on leveraging artificial intelligence for innovative research and consulting projects.
- Worked under the mentorship of the Head of Enterprise Product Management at You.com, focusing on AI-driven solutions for product strategies.

PROJECTS

Indexify | *Python, Flask, React, MongoDB, Express*   Jan 2025
- Hackathon Project – Developed "Indexify," a full-stack **machine learning** web application that converts uploaded PDF notes into concise study index cards for students.
- Engineered a robust PDF processing pipeline integrated with a Express and Flask-based REST API and a React frontend to provide a seamless user experience.
- Implemented natural language processing algorithms to extract key concepts and generate study-friendly index cards, enhancing information retention for users.

FitQuest | *React Native, TypeScript, Node.js, Express, Supabase*   Jul 2025
- **Currently building a mobile competetive fitness app:** Created dynamic workout entry forms (weights & cardio) in React Native with Expo and TanStack Query.
- **Server-side XP leveling:** Implemented XP calculation, bulk movement/session inserts, and automatic level-up logic in Node.js/Express with Supabase (Postgres).
- **Friends & guilds system:** Designed a "Find Add Friends" module—username search via indexed Supabase queries, friend-request mutations, plus architecture for future guild creation and membership management.
- **Authentication & routing:** Secured screens with JWT in AsyncStorage, gated onboarding (one-rep max setup) and workouts flows via Expo Router.
- **Performance optimizations:** Added DB indexes on filter columns, paginated large lists, pre-fetched queries, and compressed JSON payloads—cut profile-page load from **5s to sub-200ms**.

Signa | *Python, Flask, React, Express*   Mar 2025
- Developed "Signa," a full-stack **machine learning** web application that recognizes and translates sign language letters in real-time.
- Engineered a robust hand detection and gesture recognition pipeline using computer vision techniques and integrated it with a Flask-based REST API and a React frontend for seamless real-time translation.
- Leveraged deep learning algorithms and MediaPipe to accurately classify sign language letters, enhancing communication accessibility for the hearing impaired.
- Deployed on a free tier hosting service—while production performance is slower, the locally run version is significantly faster and more accurate, and can be cloned on github: Link

TECHNICAL SKILLS

Languages: C++, C, Java, JavaScript, Typescript, Python, C#, SQL, HTML/CSS
Technologies: React, Node.js, Expo, React Native, Flask, Django, MongoDB, PostgreSQL, Postman, REST APIs, TailwindCSS, FramerMotion,
Developer Tools: Git/Github, Visual Studio Code, Spline
Libraries: pandas, NumPy, Scikit-Learn, Pytorch, Hugging Face, React-Lucide, MdxEditor