Daniel J Efres

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EDUCATION

University of Central Florida   Orlando, FL
Bachelor's Degree in Computer Science, Minor in Mathematics   *Expected Grad: May 2027*

- Honors/Awards: Dean's List Fall 2023, Dean's List Spring 2024, Dean's List Fall 2024
- Organizations and Affiliations: Knight Hacks, Society of Hispanic Engineers, ColorStack

EXPERIENCE

Software Engineering Intern   May 2025 – Aug 2025
BNY   *Lake Mary, FL*

- Joined the BNY Software Engineering team as an incoming intern.

Software Engineering Intern   Mar 2025 – Present
CDL Techrangers   *Orlando, FL*

- Programmed and optimized **React**/**Django** web applications supporting **60,000+** students and faculty by refactoring database queries, and containerizing services with Docker—improving page-load times by **30%**.
- Developed the **Intelligent Course Search LTI** with **React**, **Django**, and **PostgreSQL** vector embeddings; integrated local LLM inference via Ollama and AWS Bedrock—tweaking Docker configs and model pipelines to cut latency by **20%** and enable offline development.

Secretary   Feb 2025 – Present
Knight Hacks   *Orlando, FL*

- Managed access credentials and led onboarding initiatives, ensuring seamless integration for **60+** members while coordinating event spaces and logistics with UCF Registrar for hackathons, workshops, and meetings.
- Led efforts to secure sponsorships from corporate partners, fostering long-term relationships to support Knight Hacks VIII and ensuring its success for **600+** attendees, including workshops, activities, and ceremonies.

PROJECTS

Riffs | React, Next.js, TypeScript, Tailwind CSS, Pitchy, FL Studio   Apr 2025 – Present

- Won **1st place** for **Best App** at **Bitcamp 2025**.
- Created a music tool which converts hummed melodies to editable guitar tabs via pitch detection.
- Integrated a real-time guitar sample playback with tempo control using **Pitchy** and **FL Studio**, and developed a game-like UI overlay with camera-driven animations to enhance interactivity and learning by **70%** using it.

SightSync | Python, OpenCV, MediaPipe, PyAutoGUI, Pygame   Apr 2025 – Present

- Built a system-level tool for hands-free control of the OS via **eye tracking** and **voice commands**.
- Mapped head and eye movements to cursor with **90%** accuracy using **MediaPipe** and **OpenCV**.
- Integrated **PyAutoGUI** for OS-level mouse and keyboard commands used with one's voice.

Kmodo | TypeScript, React, Next.js, Tailwind CSS, Python, tRPC, Drizzle, PostgreSQL   Jan 2025 – Present

- Developed a hackathon management platform with role-based authentication for secure access.
- Architected scalable database schemas with **Drizzle** and **PostgreSQL** for high-volume data.
- Enhanced UI/UX with responsive design principles, improving accessibility and engagement.

TECHNICAL SKILLS

Programming Languages: Python, C, C++, Java, JavaScript, HTML, CSS, TypeScript
Frameworks/Libraries: React, Angular, React Native, Django, Tailwind CSS, Node.js, Next.js, OpenCV, Drizzle, tRPC, Prisma, Tkinter, Pygame
Developer Tools: Git, GitHub, Docker, Linux, PostgreSQL, SQLite, VS Code, Vercel, Blender, Onshape