DERIC DINU DANIEL

+1-586-488-7672 | dericdd@umich.edu | linkedin.com/in/dericdinudaniel | github.com/dericdinudaniel

EDUCATION

University of Michigan   Ann Arbor, MI
Bachelor of Science in Engineering; GPA: 3.61   *Aug. 2021 – May 2025*
Dean's List

Relevant Coursework: Operating Systems (Planned), Data Structures & Algorithms, Computer Architecture, Computer Security, Computer Science Theory, Intro to Circuit Analysis, Multivariable Calculus, Linear Algebra

EXPERIENCE

Siemens   May, 2023 – Present
Software Engineer Intern   *Troy, MI*
- Managed DB and environment instances in **AWS** using EC2 and S3, while reducing development server costs by 0.5.%, to deploy testing and demo environments.
- Collaborated to manage team's migration from CPPTest to **GoogleTest** framework, while maintaining integration with **xUnit** and **AntBuild** system, resulting in departmental policy compliance.
- Participated in Scaled Agile Framework using **Siemens Polarion ALM** and **Perforce SCM** to work on **Teamcenter PLM** product suite.

UM Autonomous Robot Vehicle   Jan. 2023 – Present
Software Engineer – Sensors   *Ann Arbor, MI*
- Engineered **ROS** Node (subscribers and ROS Service) using **C++/Python** and led team of 6 to produce GPS coordinate processing pipeline to provide goal locations from current robot location in Cost Map.
- Produced **Python** scripts to test and calculate encoder accuracy, resulting in diagnosing faulty hardware and enabling rapid testing.

V1 @ Michigan   Dec. 2022 – Present
Software Engineer – Platform & Leadership Team   *Ann Arbor, MI*
- Utilized **Next.js** and **Tailwind CSS** to redesign and overhaul profile page, improving UX/UI consistency and increasing amount of info.
- Collaborated to engineer main dashboard redesign through database schema in **PostgresSQL** (**Supabase**) and front-end, resulting in 4 new features while significantly improving UI/UX.
- Supported hosting a Hackathon with Contrary Capital for student builder community at UM.

Shade   April, 2023 – Present
Consultant   *Ann Arbor, MI*
- Directed features and development of AI audio file tagging system and music production tool, leveraging 4 years of music production experience, resulting in doubling of potential market and several new features.
- Labelled audio samples with **Python** script to provide training data for AI file tagging system.

OpenMI   Jan. 2023 – Present
Project Manager & Software Engineer   *Ann Arbor, MI*
- Used **Python**, **Spotify API**, and Kaggle dataset to create a song recommendation system utilizing unsupervised **machine learning** through a cosine-similarity algorithm.

PROJECTS

Computer Architecture | *C++, LC2K Assembly, ISA's, CPU Design, Caching*
- Built an assembler, Single-Cycle & Pipeline Simulator, and Cache Simulator for LC2K assembly language.

Computer Security | *Python, C, Javascript, x86, gdb*
- Performed cryptographic, web (XSS, SQLi, CSRF), and binary (buffer overflows, shellcode exec., ROP chains) attacks on varying levels of defences

TECHNICAL SKILLS

Languages	: C/C++, Python, ARM, x86, HTML/CSS, Javascript/Typescript, MATLAB, R
Technologies	: Docker, AWS, Git, gdb, Linux
Misc.	: Ableton Live, FL Studio, Adobe Lightroom, Pioneer Rekordbox
Interests	: Music Production/Audio, Consumer Tech, Soccer/Running/Gym