Simon Angina
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Education

- **Rice University** — Houston, TX
  Bachelor of Science in Electrical and Computer Engineering; GPA: 3.80 — *Aug. 2023 – May 2027*
  - **Relevant Coursework**:
  - **Courses**: Data Structures and Algorithms, Fundamentals of Computer Engineering, Computational Thinking, Fundamentals of Electrical Engineering I & II,Intro to Physical Electronics, Intro to Program Design, Object Oriented Programming, Semiconductor Physics

Skills

- **Languages**: Python, C++, SQL, Swift, React, JS, HTML/CSS
- **Skills**: KiCad, VeriLog, LTSpice, VHDL, Project Management, Leadership, Problem Solving, Communication, Time management

Experience

- **Rice Wide Lab** — Houston, TX
  Research Assistant — *Aug 2024 - Present*
  - **Focus Area**: Spearheaded research on advanced high-performance Gallium Nitride (GaN) power devices, specializing in trench FETs, multichannel FETs, and FinFETs, resulting in 10% efficiency increase.
  - **Performance Management**: Developed and evaluated devices to achieve critical performance parameters, including: E-mode, Minimized ON-resistance, Maximized breakdown voltage, High cutoff frequency. .
  - **TCAD Simulation**: Leveraged TCAD software to model and analyze advanced GaN power devices, including custom trench FET prototypes. Extracted critical performance metrics and investigated failure mechanisms, resulting in 12% improvement in device reliability and 5% enhancement in overall performance
- **Rice Data Science Club — Data to Knowledge Lab - Rice D2K** — Houston, TX
  DEEP Research Team Leader & Mentor — *Aug 2023 - Present*
  - **Medical Data Analysis**: Led semester-long research analyzing health data of 200,000+ patients using Pandas and Jupyter, uncovering insights that informed diabetes prevention strategies and improved patient education on risk factors.
  - **Data Analysis-2024 Rice Datathon Winner**: Won 2024 Rice Datathon by creating 5 innovative, interactive visualizations in Google Colab, simplifying 50,000+ MLB data points and providing clear insights that secured the team's top position.
  - **Mentoring**: Guided the research team in analyzing key factors affecting house prices, synthesizing insights from 8000+ entries; findings directly influenced creation of a predictive model. Structured an onboarding program for new team members, streamlining training processes and providing resources that enhanced foundational skills; program is now utilized by over 10 new members annually

Projects

- **MLB Performance Analysis**: Implemented a modified ELO ranking system from scratch fitting scalar variables to maximize AUC-ROC and used it and various fatigue metrics(distance traveled, jet lag, days on the road, and differences in direction between the home and away team) to train an XGBoost Model to predict home team winning percentage for each games. Used Folium to create a US Map representing team travel distance.
- **Schedulize**: Developed a web app using React on the frontend, express.js & MongoDb on the backend, and OAuth to authorize logins. The app automatically recommends study times to students based on their schedule and automatically updates their Google Calendar. Users reported a 10% increase in efficiency and missed 30% less deadlines
- **Iris**: Engineered a Chrome extension using JavaScript and HTML that leverages the OpenAI API to dynamically highlight key paragraphs on web pages, improving user reading efficiency by 10%.