

Jasem Alkhashti

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EDUCATION

Cornell University

Master of Engineering in Systems Engineering

GPA: 4.14 / 4.00

Focus: Quantitative systems modeling, risk analysis, and decision optimization for financial and engineering systems.

Relevant Coursework: Project Management, The Strategic Management of Technology and Innovation, Model-Based Systems Engineering, Optimal Control and Decision Theory, Software Engineering Applications in Quantitative Finance.

Ithaca, NY

Aug 2025 - May 2026

University of Miami

Bachelor of Science in Computer Engineering

GPA: 3.90 / 4.00

Honors/Awards: Best ECE Project at Senior Design Expo 2025, Outstanding Computer Engineering Student (Valedictorian) Class of 2025, Magna Cum Laude, President's Honor Roll, Provost's Honor Roll, Dean's List.

Relevant Coursework: Computer Organization and Design, Digital Design Laboratory, Structured Digital Design, Digital System Design and Testability, Database Design and Management, Software Engineering and Architecture, Internet Computing, Embedded Systems, Communication Networks, Systems Programming, Data Structures, Algorithms, Computer Operating Systems.

Coral Gables, FL

Aug 2021 - May 2025

LEADERSHIP AND PROFESSIONAL EXPERIENCE

Computer Organization and Design (ECE414) & Digital Design Laboratory (ECE315)

Lab / Teaching Assistant

- Held weekly sessions lecturing and aiding over 45 students in designing and implementing complex dataflow projects in VHDL & Schematics.
- Provided assistance with debugging RTL simulations and verifications in large complex systems by hosting office hours multiple times a week.
- Designed course syllabus, researched and created computer hardware & digital design-based projects, & provided 12+ hours of office hours weekly.

Coral Gables, FL

Aug 2024 - May 2025

NVIDIA Student Network Program

Designated Lead

- Spearheaded the NVIDIA Student Network program for Eta Kappa Nu, facilitating access to exclusive AI training, tools, and hands-on projects.
- Worked with NVIDIA to organize workshops and events, offering skill-building sessions and career development opportunities.
- Fostered a dynamic environment for students, promoting resources and encouraging participation in AI initiatives.

Coral Gables, FL

Jan 2025 - Present

Bonsai Applied Computational Group

Physics Researcher

- Conducted interdisciplinary research in physics, collaborating with faculty and peers to explore computational models and experimental techniques.
- Worked with large datasets to conduct statistical analysis, identifying patterns & providing actionable insights for physics-based applications.

Coral Gables, FL

Sep 2024 - May 2025

Eta Kappa Nu (HKN, IEEE) Honor Society

Manager of Internal and External Affairs

- Facilitated activities and events by proactively establishing partnerships with diverse student organizations, faculty, departments, and external industry representatives; increased collaborative opportunities and boosted organizational visibility both on and off campus.
- Delivered personalized tutoring sessions in engineering coursework, enhancing academic performance among undergraduate students.

Coral Gables, FL

Sep 2023 - May 2025

Tau Beta Pi (TBP) Honor Society

Treasurer

- Managed the organization's financial operations, including budgeting, expense tracking, and fund allocation to ensure financial sustainability.
- Oversaw fundraising efforts and coordinated financial planning for events, contributing to the growth and success of chapter activities.

Coral Gables, FL

Sep 2024 - May 2025

University of Miami | Cornell University

Engineering Student Ambassador | MEng Ambassador

- Participated in student panels, providing valuable information to 80+ prospective students and their families about UMs College of Engineering.
- Led informative tours for prospective students, highlighting the CoE's facilities, resources, and student life to aid in their decision-making process.
- Participating in a range of events, highlighting Cornell University's Master of Engineering's program benefits, resources, faculty, and more.

Coral Gables, FL | Ithaca, NY

Jan 2024 - Present

PROJECTS

Cayuga Hedge Fund Quant Finance Portfolio Optimization + Analysis Tool | *Quantitative Analysis, Financial Modeling, Python, VS Code, Git*

- Collaborating with a six-member team to design and implement a portfolio analysis platform for the Cayuga Hedge Fund.
- Building and testing algorithms for portfolio optimization, benchmarking returns and risk metrics against the Russell 2000 Index.
- Delivering data-driven insights on diversification and risk exposure, translating quantitative findings into actionable investment recommendations.

End-to-End Model-Based Systems Engineering On Consumer Electronics | *System Optimization, Risk Modeling, Data Visualization, SysML, Excel*

- Developing detailed system models, use-case diagrams, and functional decompositions for a multi-component consumer electronics product.
- Creating requirement traceability matrices, structural, and behavioral architectures in SysML to align design intent with implementation.
- Presenting design trade-offs, risk assessments, and validation strategies through stakeholder analysis and cost-benefit modeling.

PROFESSIONAL & PERSONAL SKILLS, ACTIVITIES, & CERTIFICATIONS

Professional Skills: Project Management, Financial Modeling, Quantitative Analysis, Risk Modeling, System Optimization, Data Visualization.

Programming Languages: C++, VHDL, Python, C, Java, Verilog, MySQL, JavaScript, HTML, CSS, ARM Assembly, BCPL, MATLAB.

Frameworks/Technologies: DE1-SoC FPGA board, Intel Aria 10 GX FPGA board, NEXYS 4 FPGA board, Unix, MySQL Workbench, Vivado, ModelSim, Quartus Prime, Platform Designer, LaTeX, Canva, Arduino IDE, PSpice, Visual Studio Code, Figma, Jupyter Notebook, SysML, AutoCAD.

Languages: Arabic (Native); English (Fluent); Hindi (Proficient).

Certifications & Training: Loyac - Fursan Alsen'a - Industrial Development Workshops, Private Pilot License (PPL).

Personal Interests: Basketball, Boxing, Chess, Cooking, Drawing, Finance, International Travel, Pottery, Soccer, Social Activities, Volleyball.