

Rochester Institute of Technology

Department of Computer Engineering

Graduate Open House

RIT

Kate Gleason College of Engineering
Department of
Computer Engineering

About Myself

○ Dr. Andres Kwasinski

- Professor and Computer Engineering Graduate Program Director.
- What I teach:
 - Machine Learning, Networking, Signal Processing.
- My Research:
 - Cognitive radios and networks, smart infrastructures.
- Personal:
 - At RIT since 2008, previously with Texas Instruments.
 - Born in Argentina.



The Department of Computer Engineering

Degrees	MS, BS/MS, BS, and PhD (Umbrella Programs + coming up Fall 2021: PhD in ECE)
Undergraduate Students	394
Graduate Students	38 (MS), 64 (BS/MS), 14 (PhD)
Faculty	11



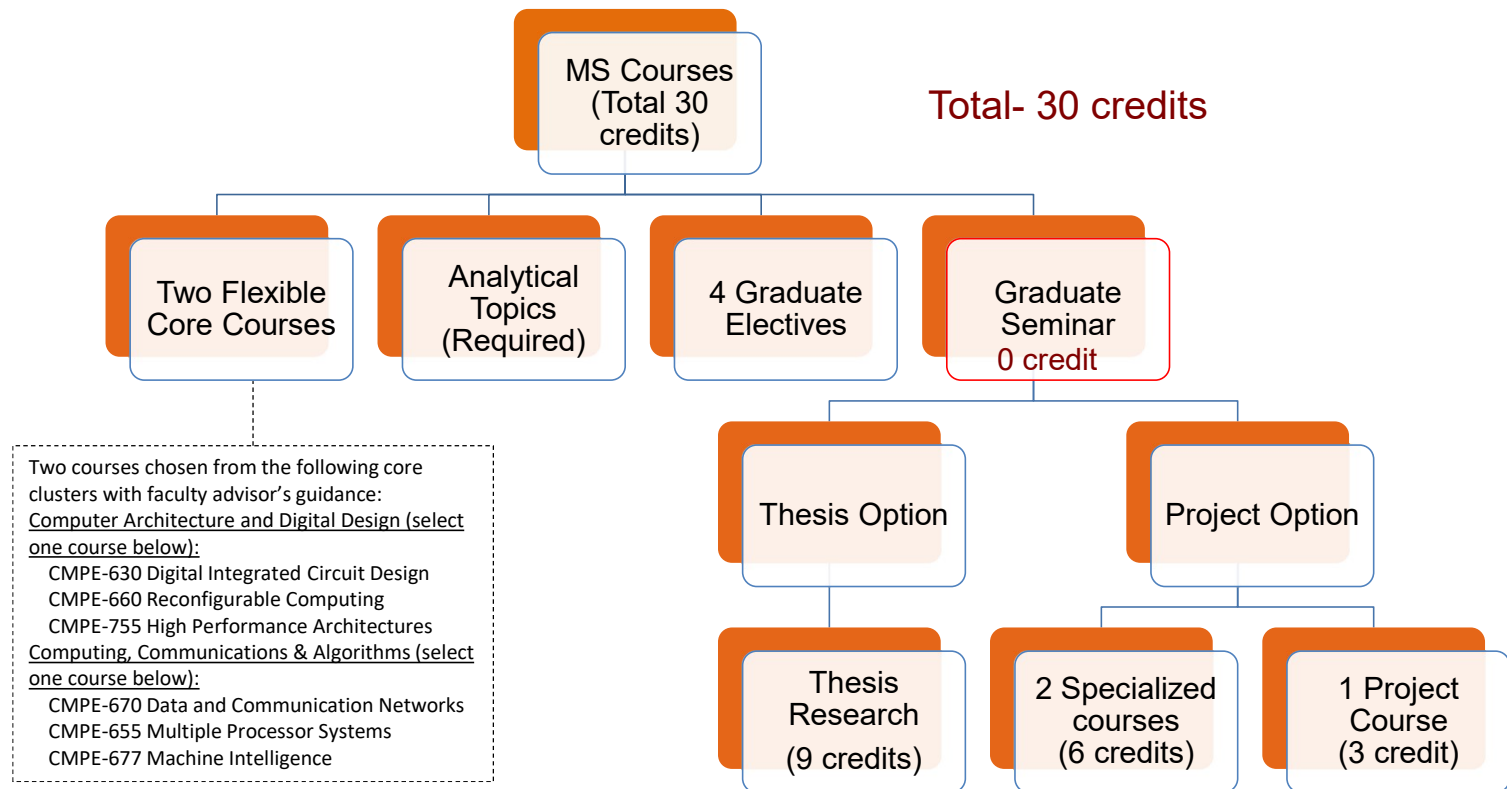
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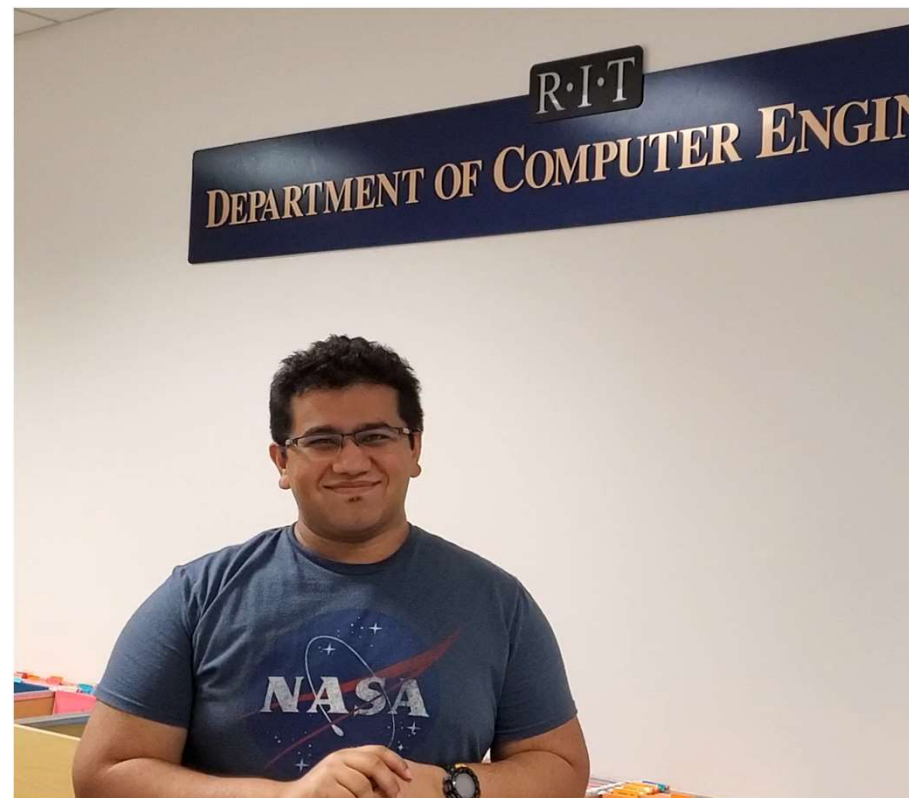
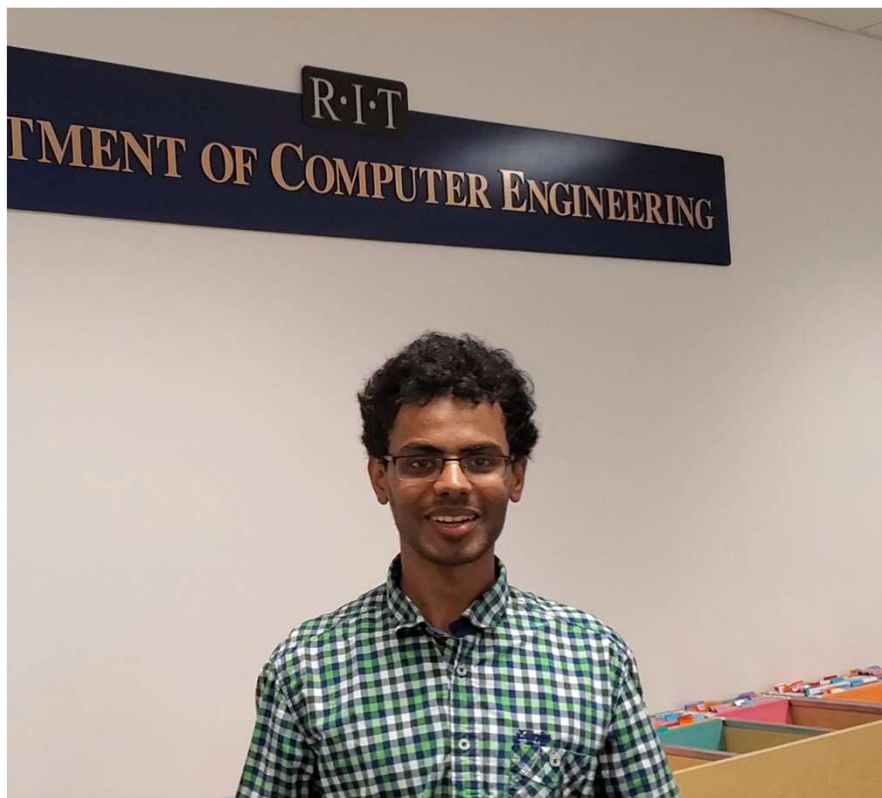


Integrating Hardware and Software – Plan of Study

- Computer Engineering: the engineering of computing systems – We engineer the information age



Our Students



Careers in Computer Engineering

96%

outcome rate
of graduates



\$104.5K

median first-year
salary of graduates

- Co-op/Internships:

- RIT is one of the leading universities in the USA for co-op programs – it is in our DNA.
- They are not required to graduate but seen as a valuable experience and skill builder.



amazon Google

QUALITROL AMD

Microsoft intel

Qualcomm L3HARRIS™

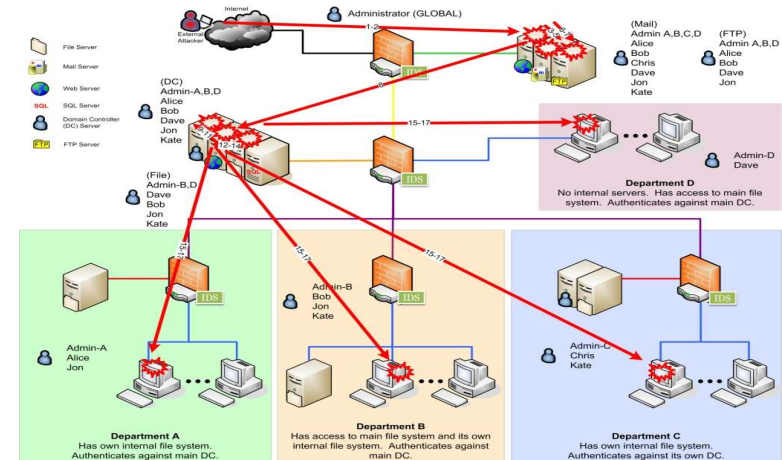
Almost **1,400** RIT employer
partners hire international students
through the co-op program!

Financial Aid

- **Scholarships:**
 - A percentage discount on tuition.
 - Discount percentage awarded at the time of admission decision based on strength of application record (if stating in application to be considered for scholarships).
 - Offered for first year and renewable for second year (subject to academic performance and funds availability).
- **Research Assistantships:**
 - Directly tied to specific research project funding – need to directly contact faculty leading the project.
- **Teaching Assistantships :**
 - Most common in the form of a “grader”.
 - Usually available for students after taking a class for which they show an excellent performance.

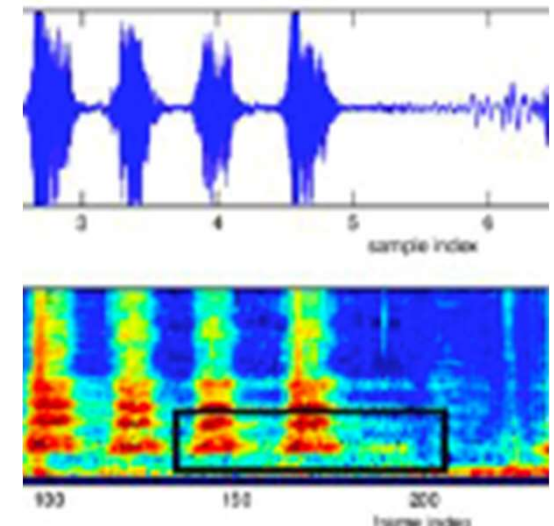
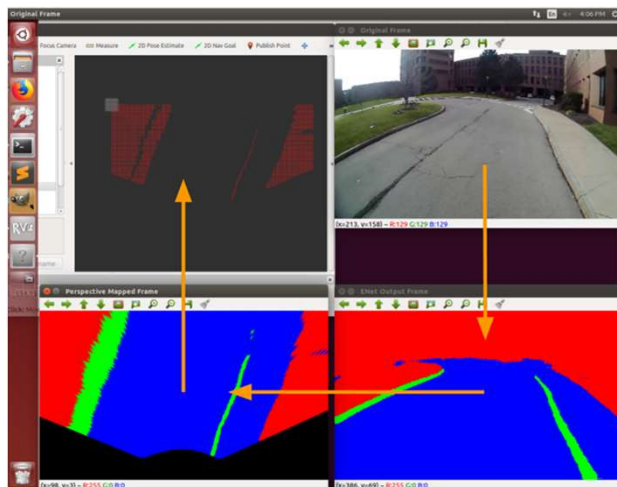
Research in Cybersecurity and Privacy

- AI/ML to enhance cyber intrusion & threat analysis in real world
- Homomorphic encryption
- Chip-level resilience and adversarial learning
- Global Cybersecurity Institute – to open in Spring 2021!
 - Cross-disciplinary education, research, and outreach with a Cyber Range



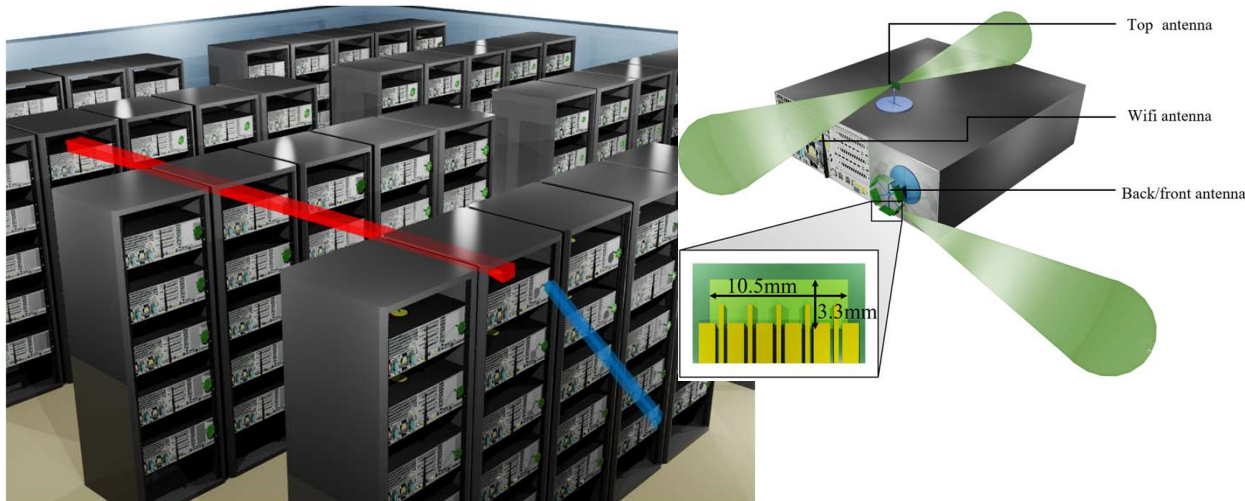
AI/Machine Learning Research

- Deepfakes Detection in Video, Audio and Speech, Self-driving Vehicles
- Cognitive Radios and Networks, AI for RF, 5G Dynamic Spectrum Sharing
- Pose Estimation, Object Tracking
- RIT's **CHAI** (Center for Human-Aware AI) <https://www.rit.edu/chai/>



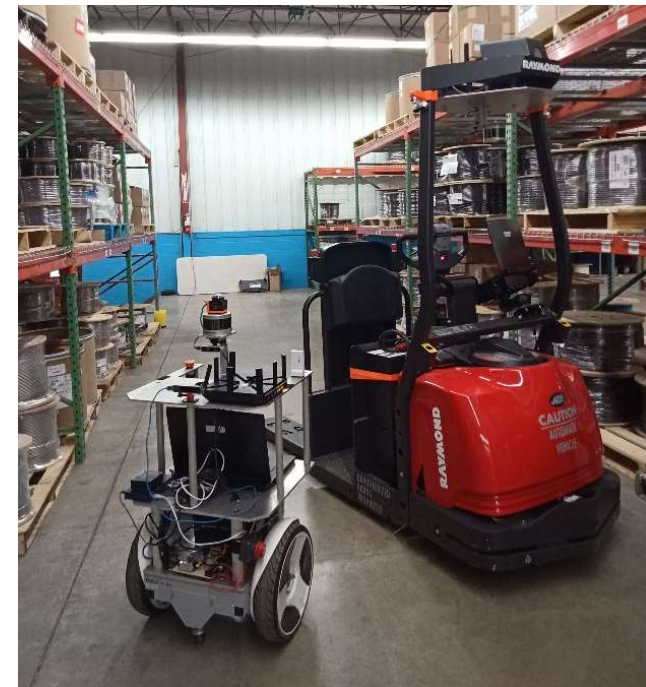
Next Generation Computing Research

- Wireless Data Centers, Computing at the Edge
- Neuromorphic Circuits, Energy-Aware Learning, Robustness of Neuromorphic Systems
- Quantum Computing, Reconfigurable/Heterogeneous Computing



Example Project: Intelligent Material Handling System

- **Many research areas:** Computer Vision, autonomous driving, indoor localization, security (blockchain), edge computing....





Thank You!

Q&A

