



TRẦN BÌNH BEN

Electrical & Computer Engineer

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<https://BenBinhTran.github.io/ECEN>

<https://github.com/PhoenixWeaver>

Ho Chi Minh City, Vietnam

Education

Philosophy (PhD), Electrical & Computer Engineering

2010 - Incomplete

Brigham Young University | Provo, UT

Radar and Satellite Communications

Master of Science (MS), Electrical Engineering

2008 - 2010

University of Arkansas | Fayetteville, AR

Microwave Imaging for Object Detection

Bachelor of Science, Electrical Engineering, Mathematics

2004 - 2008

University of Arkansas | Fayetteville, AR

AWARDS & SCHOLARSHIPS

- PhD Fellowship - BYU
- MTT-S IEEE Scholarship
- Research Grant - Honors College
- FIES Academic Scholarship
- MLK Academic Scholarship
- ICT Outstanding Award

Objective

Ph.D.-level Electrical and Computer Engineer with deep expertise in Electromagnetics and RF/Microwave systems. Seeking to leverage foundational knowledge in complex technical domains (e.g., antenna theory, computational modeling, signal analysis) for roles in technical support, research, or highly specialized engineering. Proven ability to quickly diagnose root causes, manage complex documentation, and collaborate effectively across technical teams to share intricate knowledge and support continuous team improvement in ECEn-related fields. Trained in modern web development (Frontend Master) to bridge core engineering logic with current software systems.

PUBLICATIONS

- 2014** "High Efficiency Dielectric Resonator Antenna Array Feeds for Satellite Communications," *IEEE Transactions on Antennas & Propagation* (Communication Section).
- 2013** "Broadband, High Efficiency Dielectric Resonator Antenna for Satellite Communications," *IEEE APS-URSI Symposium*.

CORE COMPETENCIES

RF & Satellite Systems: Phased Array Antennas, Dielectric Resonator Antennas (DRA), Radome Design & Analysis, Microwave Imaging, Material Characterization, RF Device Design & Optimization, Link Budget Analysis, Monopulse Radar.

Engineering Software & Tools: Ansys HFSS, Keysight ADS, CST Empire, MATLAB, Computer-Aided Design (CAD), Finite Element Analysis (FEA), LabVIEW.

Quality & Manufacturing: Quality Management Systems (QMS), Statistical Process Control (SPC), Design for Manufacturability (DFM), Root Cause Analysis, Process Validation, Failure Analysis.

Operations & Leadership: Team Leadership & Training, Workflow Optimization, KPI Tracking & Reporting, Safety & Compliance, Inventory & Asset Management, Project Coordination, Cross-Functional Collaboration.

Work experience

Shift Lead / Operations Manager

2018 - 2020

AutoZone Inc. | USA

Operational Leadership: Managed on-duty for store operations, opening/closing, and personnel supervision.

B2B Account Management: Managed Commercial/Hub departments ensuring timely fulfillment for corporate accounts.

Team Performance: Supervised a team of 6+, providing coaching to exceed sales and service targets.

Financial Oversight: Monitored cash flow, managed deposits, and optimized inventory processes.

Risk & Safety: Enforced strict loss prevention and PPE policies for a zero-incident environment.

- Poster Stone Coop Scholarship

HONORS

- National Recognition Awards – Honors College
- Dean's List & Chancellor's List – University of Arkansas
- Ambassador of Good Will – AR State Governor
- Honor Society (Gamma Beta Phi)
- National Society of Collegiate Scholars (NSCS)
- Honor Society for Electrical Engineering (HKN)

Activities

Presenter, Teacher, Mentor 2005 – 2010

International Culture Team

The International Culture Team (ICT) is a dynamic team of students and scholars that are eager to share about their culture or a culture they have lived in. ICT's goals are to bring the world to our campus and community; break stereotypes; put not well known countries on the map; and develop a community that seeks to learn from each other.

Mentor, Coordinator 2007 – 2010

Cross Culture Mentor

CCM is a student leader who volunteers to assist new international students in adjusting academically, culturally and socially to the USA and the U of A. CCM will assist in educating new students about campus and community life, provide a connection to the University, and be able to answer many of the questions new students may have upon arrival and during their first semester in the U.S. CCMs also assist new students facing difficulties with communication, social relationships, academic expectations, and general cultural changes.

Outreach Committee Chair 2009 – 2009

NWA American Red Cross

From blazes and blizzards to Floods and fires, the Arkansas Red Cross fulfills the American Red Cross mission to prevent and alleviate human suffering in the face of emergencies. For over 100 years, the Arkansas Red Cross has provided comfort, care and necessities to those affected by disaster.

Student council member 2010 – 2010

Graduate Student Society (BYU-GSS)

The GSS is proud to represent the graduate students of BYU. Our mission is to enrich the graduate student culture, enhance the BYU graduate student campus-

Customer Resolution & Retention: Leveraged diagnostic tools (ZNET) and technical knowledge to resolve complex customer concerns.

Quality Control & Assurance Specialist

2022 – 2023

Black Diamond & Kizik | USA

Testing & Analysis: Developed engineering models to evaluate raw materials and finished goods.

Statistical Data Analysis: Conducted rigorous testing for product strength and stress scenarios.

Engineering Fixture Development: Fabricated custom fixtures to improve production monitoring efficiency.

Root Cause Investigations: Facilitated technical investigations into material and design variances.

QMS Management: Maintained Quality Management Systems (QMS) ensuring audit-ready documentation.

Customer Service Partner Specialist

2024 – 2026

Concentrix and FedEx | Ho Chi Minh City, Vietnam

B2B Account Management: Primary contact for property owners, advising on platform tools and account optimization.

Technical Triage & Escalation: Identified platform bugs and routed complex system issues to the **IT Engineering department**.

Financial Inquiry Coordination: Facilitated resolution of payment/billing discrepancies with the **Credit Control team**.

Cross-Functional Liaison: Coordinated between property owners and guest agents to resolve high-priority disputes.

Incident Documentation: Utilized **ServiceNow** to record and classify incident lifecycles for audit readiness.

RESEARCH & ENGINEERING PROJECT EXPERIENCE

Research Assistant | Brigham Young University / Linear Signal Inc.
2010 – 2014

SATCOM – RAYTHEON

- **Satellite Communication Antenna Array:** Led the end-to-end design, HFSS simulation, and fabrication of a broadband, high-efficiency dielectric resonator antenna (DRA) array for satellite communications. Achieved a 10% improvement in aperture efficiency over existing models.
- **Radome Material Characterization (Raytheon Inc. Sponsored):** Developed and validated an electrodynamic model for characterizing low-loss materials at microwave frequencies and high temperatures, owning the testing process to provide critical performance data for radome design.
- **Active Steerable Antenna Array:** Designed and optimized an active, electronically steerable antenna array, including the development of dual RHCP/LHCP circular polarization capabilities for enhanced satellite link.

Research Assistant | University of Arkansas

2005 – 2010

MOLICS LAB

- **Microwave Imaging for Object Detection:** Applied advanced microwave imaging methods for non-contact object detection and characterized novel materials for creating tissue-mimicking phantoms used in system validation.
- **RF Device Fabrication & Testing:** Gained extensive hands-on experience in the fabrication and testing of various RF devices and components within a laboratory setting, adhering to strict safety and operational protocols.