Brandon Lovelace

(470) 385-1899 | Brandon@FordLovelace.com|www.linkedin.com/in/BrandonLovelace

EDUCATION

Kennesaw State University – Kennesaw, GA **August 2022 – May 2025 (Expected)**
Candidate for Master of Science in Computer Science – 4.0 GPA

Georgia Institute of Technology – Atlanta, GA **January 2016 – December 2018**
Bachelor of Science in Electrical Engineering – 2.94 GPA

Georgia State University/Georgia Perimeter College – Atlanta, GA **August 2013 – December 2015**
Regents' Engineering Transfer Program – 3.12 GPA

WORK EXPERIENCE

Georgia Tech Research Institute – Atlanta, GA **May 2018 – Present**
Research Engineer I

- Lead engineer investigating photonic packaging at GTRI, including automation of packaging tools and heterogeneous integration of RF, optical, analog, and digital systems.
- Modeling and simulation of photonic systems, design and comparison of structures for fabrication in cleanroom, and characterization of said structures.

Georgia Tech TESSAL Center – Atlanta, GA **May 2017 – May 2018**
Lead Teaching Assistant

- Prepared and proctored weekly labs.
- Designed and constructed labs that are currently being used in several ECE courses.

Van Leer Senior Design Center – Atlanta, GA **May 2017 – May 2018**
Senior Lab Assistant

- Assisted students with their senior design projects regarding electronic and mechanical hardware, software, and system level integration of their ideas.

PROJECTS

Fully Automated Hydroponics/Aquaponics System and Greenhouse/Terrarium

- Automated watering, lighting, temperature, and humidity of plants with data recording and exportation.
- Project was pitched to and accepted to Georgia Tech's Create-X startup program.

Electric Guitar Build

- Designed and built a full-scale electric guitar, including complex circuit that utilized coil splitting of guitar pickups.

Senior Design - Automatic Recycling Sorter

- Computer vision-based project utilizing a Raspberry Pi to automate and sort recyclables.

SKILLS

Programming: Java, Python, C/C++, MATLAB, HTML, CSS, JavaScript
Simulation: Lumerical, Synopsis OptSim, LTSpice
Circuit Design: Altium Designer, Eagle, KiCad
Mechanical Design: Solidworks, AutoCAD, AutoDesk Inventor, FreeCAD
Practical: Electrical and photonic packaging, Automation, Analog, Electro-Optic, and RF measurements, Mechanical design and simulation, Circuit prototyping and simulation, Photonic system simulation

PUBLICATIONS

- Aging and performance comparison of common UVC reflective media in UV Air disinfection (IUVA 2022)
- Photonic Integrated Circuits for Simultaneous Channelization and Downconversion (AVFOP 2019)
- Insertion Loss of 3D Printed Microspheres on Photonic Integrated Circuits (AVFOP 2019)

HONORS

- 2021 GTRI IRAD of the Year Recipient – BLUESHIFT
- 2021 GTRI IRAD of the Year Nomination – Lunar Flashlight