

[weston.r.lane.work@gmail.com](mailto:weston.r.lane.work@gmail.com)



## EDUCATION

**Rutgers University (Currently Pursuing-Junior Year)**  
*B.S, Computer Science*

(transferred to) Aug, 2023-May, 2026  
*New Brunswick, NJ*

- GPA 3.93

**Del Mar Community College**  
*31 credits, Computer Science*

(transferred from) Aug 2021-May, 2023  
*Corpus Christi, TX*

- GPA 4.0

**USCG TRACEN Elizabeth City**  
*Avionics Electrical Technician*

Jun, 2019-Dec 2019  
*Elizabeth City, NC*

- Educated on basic electrical theory, reading complex wiring diagrams, troubleshooting aircraft electrical and mechanical issues, and wire soldering. Allowed for experience solving complex problems, critical thinking, and electrical troubleshooting skills.

## PROJECTS/RELEVANT COURSEWORK

- Courses: *Computer Graphics, Computer Architecture, Operating Systems, Data Structures and Algorithms, Internet Technology, Network and Computer Security*
- Single file Software Ray Tracer; Makes JPEG images of raytraced spheroids in 3-Dimensional space with adjustable positional inputs. -C++.
- Hardware accelerated ray casting engine. Creates a 3-D scene from rays cast from a point. OpenGL rendering pipeline. -OpenGL, C++
- Snow mesh deformation scene. A 3-D visual experience that simulates snow deformation under weight. -Unity 3D, C#
- Application engine for creating windows desktop applications. -OpenGL, C++
- Personal website hosted on github pages-Javascript, HTML, CSS

## WORK EXPERIENCE

**United States Coast Guard**  
*Third Class Avionics Electrical Technician (AET)*

(6.5 yrs.) Jan. 2017 – Aug. 2023  
*various, Corpus Christi, TX*

- Previously held **secret security clearance** while in the military (lapsed-1yr).
- Conducted routine and non-standard maintenance on USCG HC-144 aircraft. Maintenance includes mechanical and electrical troubleshooting on all aircraft systems. Strong problem-solving ability.
- Conducted advanced electrical troubleshooting on the USCG HC-144 aircraft. Including fixed wing engine changes, wire run swaps, electrical interface component changes, wire diagram troubleshooting, soldering, hydraulic systems maintenance, and corrosion prevention
- Over 3 years of aviation and maritime mechanical/electrical maintenance. With over 3000 tracked maintenance hours on USCG assets.
- Logged all completed maintenance in USCG wide ALMIS maintenance tracking system. Demonstrating book keeping ability for mission readiness.

- Updated cryptographic codes for radio systems. Required attention to detail and secret clearance. Lead to a personal completion of 125 CG aviation law enforcement patrol missions.
- Experience training junior members in onboarding, maintenance, and flight operations resulting in over 50 qualified team members. Accustomed to working with others to achieve a common goal.
- Maritime Law Enforcement officer. Boarding team member conducting over 100 boarding of small craft vessels of interest leading to high number contributions to sector port safety.
- Comms watch officer during 5 Search and Rescue missions, requiring accurate communication under a stressful environment. Lead to over 5 lives saved and \$3 million in ports and waterways damage protection.

---

## CERTIFICATIONS & SKILLS

- **Certifications:** Previously held secret clearance; Mission Systems Operator; USCG TRACEN Elizabeth City
- **Skills:** Java; C; C++; C# Linux; Windows; Visual Studio; Electrical Technician; Mechanical and Electrical system maintenance/troubleshooting; Avionics Systems; Training; record documentation; Team coordination