# TONY LOCKHART

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## FULL STACK DEVELOPER

### Create AI-driven solutions that promote usability, provide embedded support, and foster inclusion

Leverage system design expertise and organizational skills to architect high-level workflows and communicate technical feasibility. Self-starter known for exceptional attention to detail, strong problem-solving abilities, and excellent written and verbal communication skills. Passionate about fostering team growth and knowledge sharing, accelerating product innovation and success.

## TECHNICAL SKILLS

Frontend: TypeScript, JavaScript, React, React Native, CSS3, HTML5, Bootstrap 5, Redux

**Backend:** Node.js, Ruby, Express, MongoDB, MySQL

AI/ML: Python, Pandas, HuggingFace, TensorFlow, MS Azure, OpenAI

Tools & Other: Git, GitHub, Unix, Docker, Figma, Adobe Creative Suite, Firebase, MS Graph

## **Professional Experience**

### PEARSON EDUCATION, Atlanta, GA 2021 - 2025

## **Creative Technologist (UX Engineer)**

Led product ideation, prototyping, and development of new projects and features in cross-functional Agile environments. Conducted case studies to align product solutions with business goals. Presented findings to stakeholders and delivered comprehensive requirements documentation. Hosted TypeScript training sessions to enhance team collaboration and technical proficiency.

- Developed Teaching Pal prototype to generate instructor lesson plans, featuring lesson objective search with custom CSS styled React-Select components to filter options based on user input; projected to save U.S. educators 3M hours per week by 2026.
- Integrated conversational AI agent into Pearson Test of English prototype, enhancing natural dialogue; implemented OpenAI Whisper Service for transcription, GPT-4 for NLP responses, and Microsoft Azure Speech SDK for text translation.
- Deployed LTI express server to display 3rd-party SPA applications within Canvas, using Node.js, ims-lti library, and OAuth consumer keys, enabling LMS interoperability and providing process improvement.
- Transformed Endeavor Prototyping web application into enterprise solution by developing Node.js backend API for MS SSO and
  frontend login components. Designed and implemented project management features, streamlining authentication, enabling
  project tracking, and optimizing resource allocation.

### ENDAVA (previously Levvel), Atlanta, GA 2021

#### **Engineering Consultant**

Developed and maintained features for Lineage Warehouse Management System's core services. Enhanced communication between Lineage Dynamic Dashboard, tablet-based work allocation system, and carrier messaging system.

- Developed NestJS modules to update delivery schedules in coordination with real-time driver messaging, improving shipment tracking and problem escalation in Lineage Logistics' Dynamic Dashboard.
- Refactored regional UFO services and controllers for redeployment to Lineage Core Services; regenerated and tested RESTful Automation API and HTML client using OpenAPI (OAS) YAML specification, improving barcode resolution and reducing processing delays at warehouse facilities.
- Worked in Agile environment, collaborating with cross-functional teams to manage feature development, bug fixes, and deployments using Bitbucket.

## HIGH TIDE TECHNOLOGIES, Atlanta, GA 2019 - 2021

## **Full Stack Developer**

Enhanced High Tide Technologies' AWS-hosted SCADA platform to improve remote system control, provide monthly reporting, and strengthen system security.

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#### **HIGH TIDE TECHNOLOGIES** (Continued)

- Developed D3 dashboard device components for Ember.js client and Ruby on Rails backend SMS API, enabling remote monitoring, alarm acknowledgment, and system controls for mobile command triggers, reducing on-site outage response time 80%.
- Built a backend XLSX report generation API using Ruby "write\_xlsx" gem, enabling users to request device metrics and forecast trends from the client, improving decision-making efficiency.
- Strengthened login security by implementing Ruby JWT authenticated routes, including monthly password resets, refresh tokens, and Multi-Factor Authentication (MFA), ensuring secure authentication and reducing login failures.
- Developed unit and acceptance tests with RSpec and QUnit, certifying application reliability in Dockerized environments using AWS DynamoDB, MySQL, and GitHub Actions CI/CD.

## GENERAL DYNAMICS, Atlanta, GA 2011 - 2019

#### **Systems Engineer**

Managed system and security administration for CDC World Trade Center Health Program (WTCHP) to ensure efficient medical claims processing for 9/11 responders and survivors. Developed file transfer processes for CDC Clinical Centers of Excellence and Trading Partners, in compliance with Federal Information Processing Standards (FIPS).

- Modernized network security by migrating from McAfee to Alert Logic and Bitdefender, reducing annual security costs by \$250K.
- Developed installation scripts and configured bi-directional firewall rules between internal servers and external vendor endpoints to support managed security deployment across the enterprise.
- Automated weekly DISA STIGs compliance reporting using PowerShell, ensuring servers met U.S. Department of Defense security standards.
- Developed Java applications to convert Microsoft Active Directory data into security access reports, verifying controlled access to PII for 100K claimants.

#### GEORGIA GWINNETT COLLEGE, Lawrenceville, GA 2012 - 2014

#### **Digital Media Professor**

- Digital Media (ITEC2110): Delivered hands-on instruction in graphic design, audio / video production, and 2D/3D animation to 100 students annually, equipping students with industry-relevant technical skills.
- Introduction to Computing (ITEC1001): Taught core computing concepts, including cybersecurity, networking, and software design to 100 students annually, with 100% achieving foundational IT proficiency.

## **EDUCATION**

Master of Science (MS), Digital Media, Georgia Institute of Technology, Atlanta, GA
Bachelor of Science (BS), Computer Science, Alabama A&M University, Normal, AL
AI and Machine Learning Certificate, UNC AI Bootcamp, UNC-Chapel Hill, Chapel Hill, NC
JavaScript Full Stack Web Development Certificate, Georgia Tech Coding Bootcamp,
Georgia Institute of Technology, Atlanta, GA

## **SELECTED PROJECTS**

- Pearson Test of English (PTE): Conversational AI | <u>Demo</u>
  - Implemented language transcription and audio recording with OpenAI Whisper Service
  - Integrated GPT-4 API for low-latency natural language processing (NLP) responses
- Teaching Pal AI Lesson Planner | Demo
  - Developed instructor lesson plan generator prototype
  - Implemented dynamic forms for grade level, ESL, and special education customization
- Mondly Language Learning Platform: Placement Test | <u>Demo</u>
  - Developed preliminary assessment system to initiate Mondly language learning sessions
  - Designed and built adaptive placement test to assess English proficiency