

MATTHEW POOL

Software Engineer | Product Designer

UI/UX / Native Mobile / Full-Stack Web / AI/ML / Technical Sales



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Winnsboro, TX



matthew-pool.github.io

PROFESSIONAL SUMMARY

Software Engineer and Product Designer with a B.S. in Computer Science (3.99 GPA) blending technical depth with a versatile background featuring 5 years in top-ranked outbound B2B/B2C sales, over 2 years of management, and 10+ years of combined customer service and technical support experience. Leverages a strong foundation in clear communication and rapid problem-solving to architect robust, user-centric applications. Expertise spans the full software lifecycle—from conceptual design and automated testing (CI/CD) to production deployment—ensuring high-quality, accessible products that deliver exceptional user experiences.

EDUCATION

Bachelor of Science in Computer Science

Southern New Hampshire University (Manchester, NH) • Sep 2021 - Dec 2024

Summa Cum Laude • 3.99 GPA • President's List (2023-2024)

Certificate in Data Analysis • uCertify (2024)

Associate of Arts in General Studies

Tyler Junior College (Tyler, TX) • Aug 2003 - May 2005

TECHNICAL SKILLS

Product Design

UI/UX Design, Figma, Adobe Creative Suite, CAD, SketchUp, Responsive Design, User Flows, Information Architecture

Programming Languages

Python, JavaScript, TypeScript, Kotlin, Java, C/C++, C#, SQL

Gaming & Graphics

Unity, OpenGL/GLSL, Reinforcement Learning (RL), Deep Q-Networks (DQN)

Mobile Development

Android SDK, Jetpack Compose, Material Design 3, MVVM Architecture, Coroutines, Hilt, Firebase, REST APIs

Web Technologies

React, Angular, Node.js, Express.js, LoopBack API, RxJS, HTML5, CSS3, Vite, MVC, Bootstrap, Tailwind CSS, Handlebars, Spring Boot

Databases

MySQL, MongoDB, Mongoose (ODM), AWS DynamoDB, Firebase Firestore

Data Science & Machine Learning

TensorFlow, scikit-learn, Pandas, NumPy, Matplotlib, Deep Neural Networks (DNN), Convolutional Neural Networks (CNN)

Testing & QA

Postman, pytest, JUnit, MockK, Mockito, Espresso, Jacoco, Jest, Selenium

DevOps & Security

Docker/Docker Compose, AWS, CI/CD, Git/GitHub Actions, JWT, OWASP, Snyk, TLS/SSL, RSA/AES, Gradle, Maven

TECHNICAL PROJECTS

Full-Stack Travel Platform

Angular, TypeScript, LoopBack API, Docker, AWS DynamoDB

- Engineered an Angular/TypeScript SPA utilizing the LoopBack API framework, orchestrating a Docker-containerized database migration from MongoDB to AWS DynamoDB.

The Existence Paradox

React, TypeScript, Tailwind CSS, Vite

- Developed an interactive, responsive web application featuring dynamic state management and complex decision-tree navigation.

Financial Security Audit & Remediation

Java, Spring Boot, OWASP, AES/SHA Cryptography

- Refactored a legacy RESTful API to implement AES-256 encryption at rest, mitigating injection risks and ensuring OWASP compliance.

Austin Animal Center Dashboard

Python, MongoDB, Dash, Pandas

- Architected an interactive MVC data dashboard with custom Python CRUD modules, Dash data visualization, and geolocation mapping.

Machine Learning Models

Python, TensorFlow, Scikit-Learn, NumPy

- Trained and optimized Convolutional Neural Networks (CNN) for image recognition and Deep Q-Learning Networks (DQN) for pathfinding optimization.

Super Mario Bros. 3D Engine

C++, OpenGL, GLSL, GLM

- Recreated classic 3D scenes utilizing custom shaders, manual mesh generation, and optimized rendering pipelines with a Phong lighting model.

Product Design & UX

Figma, Wireframes, UI/UX Design

- Designed end-to-end user experiences for mobile and web applications, producing extensive user personas, low-fidelity wireframes, and high-fidelity interactive mockups.

Check out these projects and others at

matthew-pool.github.io

PROFESSIONAL EXPERIENCE

Lead Software Engineer & Product Designer

Jan 2025 – Present

AppBuddy (Independent Venture)

- **Product Strategy & Execution:** Architected and launched Flick, a complex native Android video streaming platform.
- **Android Engineering Architecture:** Engineered a scalable native Android application using Kotlin and Jetpack Compose (Material Design 3); implemented clean architecture (MVVM), Hilt dependency injection, and offline-first data synchronization.
- **ML-Driven Personalization:** Designed and deployed a proprietary content recommendation engine that analyzes user engagement signals to dynamically rank video feeds.
- **Infrastructure Optimization:** Engineered a cost-efficient backend strategy by integrating Retrofit with the Archive.org API, leveraging public domain assets to reduce content delivery costs to near-zero.
- **DevOps & Quality Assurance:** Built a robust CI/CD pipeline via GitHub Actions, automating unit (JUnit/MockK) and UI tests (Espresso) to ensure virtually crash-free sessions in production.

Career Break & Independent Projects

2014 – 2021

Winnsboro, TX

Planned career break to manage family operations and execute independent construction projects.

- **Family Management:** Served as primary caregiver and home manager (2015–2020), facilitating spouse's return to college (BBA, 2017–2020), and managing the household, handling responsibilities for a family of four.
- **Woodworking & Design:** Executed custom woodworking projects for Diamond G Cedar (2014), abiding by strict specifications and deadlines, assisted in sales and general tasks.
- **Construction & Engineering:** Designed and constructed a residential structure (2-room tiny home) from raw materials (2010/Ongoing); managed resource allocation, structural planning, and electrical/finish work.

Technical Support, IT Operations & Inbound Sales (2011–2013)

Desktop Support Specialist • Sutherland (2013)

Tech Support Representative • National Electronics Warranty / DirecTV (2011–2012)

Tech Support Agent • TeleNetwork / Frontier Communications (2011)

- **Technical Communication:** Translated complex hardware, software, VoIP, and ISP issues into clear guidance for customers – directly applicable to communicating technical concepts across diverse audiences.
- **Inbound Sales & Upselling:** Identified upsell and upgrade opportunities during support interactions, consistently meeting or exceeding sales and satisfaction targets alongside call volume goals.
- **Remote Diagnostics & Documentation:** Diagnosed and resolved complex issues via remote desktop tools; documented resolutions in CRM knowledge bases to improve team-wide efficiency.

Retail Operations (2009–2010)

Retail Associate • Kmart (2009–2010)

- **Floor & Receiving Operations:** Stocked shelves, unloaded and sorted delivery trucks, and executed planogram layouts to ensure accurate product placement and full department compliance.
- **Customer Service & In-Store Sales:** Assisted customers on the floor, resolved inquiries and complaints, and proactively enrolled customers in Kmart credit accounts — contributing directly to store-level sales targets.

Outbound Sales & Account Management (2004–2009)

 Recurring Top Performer

Sales Representative • T.C.I.M. Services — B2B/B2C outbound sales campaigns on behalf of Fortune 500 clients including *American Express, AT&T, QVC, Citibank*, and others

Texas State Insurance License obtained independently within the branch.

- **B2B Outbound Sales for Fortune 500 Clients:** Conducted high-volume outbound sales calls on behalf of American Express, engaging business card account holders with targeted commercial offers — building rapport, handling objections, and closing sales. Consistently ranked among the top performers in a rolling pool of 100+ representatives.
- **Recognized Performance:** Earned commission-based compensation and awarded Top Performer of the Month on multiple occasions across campaigns for AT&T, QVC, Citibank, and other major Fortune 500 clients.
- **Training & Process Improvement:** Developed call scripts adopted across the team; trained junior sales representatives on objection handling and closing techniques. Solely obtained Texas State Insurance License within the branch, directly expanding team service capability.
- **Retention & Relationship Management:** Consistently exceeded KPIs across acquisition, upsell, and retention metrics through effective communication, rapport-building, and disciplined objection handling.

Shift Management & Customer Service Operations (1997–2003)

 2+ Years Management

Shift Manager • Fast Food & Customer Service (multiple locations, East TX)

- **Team Leadership & Accountability:** Served as the top person in charge for multiple employees per shift — responsible for directing workflow, delegating tasks, training new hires, and upholding service and cleanliness standards throughout the entire location, including all restrooms and common areas.
- **Cash Handling & Financial Responsibility:** Processed all customer payments via cash register; counted down registers at end of shift and prepared daily cash deposits — fully trusted with financial accountability at close of business.
- **Store Operations & Communication:** Regularly trusted to close the store independently at night; fielded incoming calls, resolved escalated customer issues, and acted as the direct liaison between floor staff and upper management for the duration of each shift.