

Tristan Curtis

tmcurti4@ncsu.edu • (410) 953-9071 • <https://linkedin.com/in/tristan-curtis-baabba304> • <https://github.com/tmc3221>

EDUCATION

North Carolina State University | Raleigh, NC

B.S. in Computer Science | Minor in Mathematics | GPA: 3.7/4.0 | Dean's List

May 2027

Relevant Courses: Data Structures and Algorithms, Operating Systems, Statistics, Parallel Computing, Software Engineering

WORK EXPERIENCE

Deutsche Bank | Fullstack Software Engineer INTERN – GLOBAL RECEIPTS PLATFORM | Cary, NC

May 2025 - August 2025

- Optimized API calls to cut message display time, reducing load latency by 50% and improving user responsiveness
- Built transaction success indicator for batch uploads to internal file repository, improving financial auditability for a high-value asset platform and reducing reconciliation time by 30%
- Developed ESG analytics microservice with support for image generation and competitor benchmarking, reducing NLP preprocessing from 2 hours to 2 minutes through webscraping automation and batch processing

Curtis Consulting Corp. | Fullstack Software Engineer | Ellicott City, MD

May 2024 - August 2024

- Developed payroll automation platform that replaced manual processes, enabling the business owner to cut payroll processing time by 80%
- Built RESTful microservices with Spring Boot to handle, paystub generation, and automated distribution to employees
- Integrated user-friendly web interface with HTML/CSS allowing 10+ employees to submit timesheets directly, reducing reporting errors by 25%

PROJECTS

[Catphish](#) | Hack_NCState 2026 Overall Winner & Best Use of Valkey API | FastAPI, Valkey, Gemini API, Solana, Docker

- Built voice-based identity verification API protecting login flows from AI voice cloning and social engineering attacks
- Implemented low-latency authentication sessions via Valkey TTL and added tamper-proof Solana audit logging without storing biometric or PII data

[Huddle-Bot Fantasy Football Predictor](#) | Python, Scikit-learn, Ensemble Learning, RAG, SQLite, React, Selenium, Cloudflare

- Built fantasy analytics platform serving 300+ monthly users with ML projections and automated data ingestion
- Trained a residual-boosted ensemble model achieving ± 5.0 MAE, outperforming ESPN's ± 5.5 benchmark using 50+ engineered features
- Engineered a Cloudflare Workers ingestion pipeline aggregating live NFL news, tweets, injuries, and depth chart updates into a unified feed refreshing every 60 seconds
- Published the HuddleBot Open API, exposing projections, news, and player analytics to external developers

BORD | C++, Custom Digital Signal Processor, Runtime Systems, Scheme

- Built a modular C++ DSP engine supporting delay, gain, distortion, filtering, and a custom made vocoder effect
- Implemented the complete runtime/evaluator for a Scheme-inspired DSP language, including closures, lexical scoping, value types, function application, and environment management
- Connected language primitives to underlying C++ DSP nodes, enabling real-time audio processing pipelines

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C, C#, HTML, CSS, JavaScript, SQL, TypeScript
- **Developer Tools:** Git, GCP, Docker, Kubernetes, Jira, Postman, Maven, Swagger, Jenkins, Github Actions, Agile Methods
- **Database Management:** SQLite3, MySQL, BigQuery, PostgreSQL, Redis, Valkey
- **Operating Systems:** Windows, Linux (Ubuntu, Debian, RHEL, Fedora, Arch)
- **Libraries/Frameworks:** Spring Boot, FastAPI, Pandas, Scikit-learn, React, Node.js, Express, Flask

HONORS & AWARDS

- Hack_NCState 2026 — **1st Place Overall** (96 competing teams)
- Hack_NCState 2026 — **Best Use of Valkey API**