COOPER SHAPARD

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TECHNICAL SKILLS

SOFTWARE	Python, C++, SQL, JavaScript, HTML, GDScript, Pandas, Solidity, Docker
HARDWARE	Verilog, LTSpice, MATLAB, ARM Assembly, Raspberry Pi
LANGUAGES	English (Native), Spanish (Working Proficiency), Japanese (Basic Proficiency)

EDUCATION

SOUTHERN METHODIST UNIVERSITY (SMU) | BS in Computer Engineering and Computer Science   DALLAS, TX | May 2026
Honors/Awards: Hilltop Scholar, Distinguished Scholar, Engineering Discovery Scholar, Maguire Ethics Essay-   GPA: 4.0/4.0
Contest First Prize, Hegi Networking Excellence Award, Honor Roll with High Distinction (2)

JOHNS HOPKINS UNIVERSITY | Summer Engineering Classes   BALTIMORE, MD | Summer 2022
GPA: 4.0/4.0

PROJECT EXPERIENCE

TECH STARTUP (MEMBRANE: TRANSPARANT CROWDSOURCING)   DALLAS, TX | Mar. 2024 - Present
- Collaborate with 3 PhD students at SMU to create a blockchain-based framework for transparent research data sharing
- Expand upon the **Solidity** smart contract workshopped in the 36-hour HackTheChains hackathon, which won first prize
- Publish research papers on secure data trading methods and attribution accountability

GAME DEVELOPMENT TEAM   DALLAS, TX | Apr. 2023 - Present
- Lead a team of 3 as the head programmer, cooperating with developers to plan and produce a polished game
- Combine accessibility features and engaging puzzles to be inviting towards players with disabilities, namely the blind
- Code in Godot's native **GDScript** after migrating away from **C#** in Unity Engine

X-CANCELING MISR RESEARCH   DALLAS, TX | Oct. 2023 - May 2024
- Cooperated with staff in the ECE Department of SMU and presented findings to a group of 10 distinguished researchers
- Developed **Python** scripts to clean large arrays of data in O(n log n) time and designed test circuits with HDL **Verilog** and **LTSpice**

WORK EXPERIENCE

RESIDENTIAL ASSISTANT (RA) — SMU   DALLAS, TX | Jul. 2024 - Present
- Assist in creating a welcoming and inclusive community in the SMU residential commons
- Host floor events, direct students to school resources, and promote safety and culture within the building

MICROCONTROLLERS (ECE1381) TEACHING ASSISTANT (TA) — SMU   DALLAS, TX | Jan. 2024 - Present
- Oversee 30 students and assist with proper **ARM Assembly** code design
- Debug student programs with **Vim** and manage **Raspberry Pi** hardware bugs

SOFTWARE ENGINEERING INTERN — RAYTHEON (RTX)   RICHARDSON, TX | May 2024 - Aug. 2024
- Designed **Python** scripts to enhance a tool that performs pricing runs on company contracts
- Improved the tool's speed by over 2400x by migrating from **Excel VBA** to Python's **Pandas** library
- Integrated **DevOps** automation and a **GUI Design** with an admin panel and bidder inputs
- Deployed with **Docker** to over 500 employees across 4 programs

FIELD DATA INTERN — CITY OF MIDWEST CITY DEPARTMENT OF ENGINEERING   MIDWEST CITY, OK | May 2023 - Aug. 2023
- Aggregated city infrastructure data and pitched solutions to 12 city management officials
- Reduced system storage space from 6TB to 2TB while doubling the number of entries

LEADERSHIP & COMMUNITY SERVICE

VICE CHAIR — SMU INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) CHAPTER   DALLAS, TX | Jan. 2024 - Present
- Manage club resources regarding Electrical and Computer Engineering undergraduates
- Increased chapter funding by over 100% and attendance by 50% in one semester

FOUNDER — SMU SMILES CHARITY   DALLAS, TX | Sept. 2023 - Present
- Founded the charity, which distributes dental care resources and presentations to underprivileged elementary schoolers
- Connect dentists directly to local schools to keep community service self-sufficient and in the DFW area
- Distributed toothbrushes, toothpaste, and floss to over 350 students at 3 schools, supported by 2 dental offices and rising

Hobbies: Stenography, Music (Drums,Guitar,Piano,Array Mbira), Book Folding, Personal Knowledge Management, Reading (Sci-Fi,Psychology), Journaling, Rock Climbing