Andrew Pan

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education

2019–present **B.A. in Computer Science**, *University of Minnesota*, 3.756 GPA.

Currently a sophomore at the University of Minnesota, expected graduation Spring 2022.

selected CSCI coursework

- o CSCI2021, Machine Architecture and Organization
- o CSCI2041, Advanced Programming Principles
- o CSCI2033, Elementary Computational Linear Algebra
- o CSCI5551, Introduction to Intelligent Robotic Systems (in-progress)
- o CSCI4611, Programming Interactive Computer Graphics and Games (in-progress)

extracurriculars

ACM UMN Officer (webmaster) for ACM UMN, the local chapter of the Association for Com-2020-present puting Machinery.

UMN SVP Member of the Controls subteam on the U of M Solar Vehicle Project. Worked on 2019–present design of the rearview system and integrated USB support for the telemetry system.

FTC Programmer for First Tech Challenge teams 5199 and 6200. The First Tech Challenge 2016–2019 is a global robotics competition for students in middle and high school. Implemented computer vision algorithms for autonomous robot operation (OpenCV), running on an Android-based robotics platform. Took Team 5199 to the world championship.

skillset

individual categories ordered by exposure, most to least.

web REST, PHP, node, HTML/JS sysadmin (ba|fi)sh, awk, misc. unix tooling, docker

systems RE (mobile and desktop apps), mobile java, android app dev. go, c/pp, ARM asm

personal projects and contributions

tpl-c900-openwrt-install 😱

keywords reverse engineering, unix tooling, lua, go

description Broke firmware verification scheme on the TP-Link Archer C900, a consumer router. Installed alternative open source router firmware (OpenWRT). Documented process for others to follow.

the most recent revision of this document can be found at unown.me/cv.pdf

J2V8 😱

keywords cpp, nodejs, android, docker

description Ported J2V8, Java bindings for the NodeJS JavaScript engine, to Android. Automated build process with a Docker image. Submitted changes to upstream.

Sheep 😱

keywords php, minecraft, pocketmine

description Wrote and maintained a plugin manager for PocketMine-MP, the third-party Minecraft: Pocket Edition server software. Gained familiarity with PHP dependency management (Composer) and the general ecosystem.