NATHAN J HARRIS

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SKILLS

Languages: C/C++, Python, JavaScript

Tools/Libraries/Frameworks: Linux, Django, Flask, NumPy, Pandas, React, Node.js, Git, Github, HTML, CSS

Methodologies: Agile, Project Management, Unit Testing, Peer Programming

Areas of Proficiency: Cross-Functional Collaboration, Team Leadership, Algorithms, Full Stack Web Development, Systems Programming, Object-Oriented Programming, Coding Best Practices, Operating Systems

EDUCATION

University of Colorado Boulder	B.A. Computer Science – 3.8 GPA	2025
General Assembly	Software Engineering Immersive Bootcamp	2020
Southern Methodist University	B.A. Cinema	2010

PROJECTS

Multithreaded DNS Lookup – C programming language, Makefiles, Posix, Semaphores, Mutexes - *Design and Analysis of OS*
Developed a multithreaded application implementing the Producer-Consumer problem for DNS lookups, using POSIX threads, mutexes, semaphores, and a circular buffer for efficient thread-safe resource management.

RSA Codebreaking Project – Python, Modular Arithmetic, Jupyter Notebooks OOP – *Discrete Structures*
Developed an RSA encryption and decryption system in Python, leveraging number theory, object-oriented design, and algorithms like Fast Modular Exponentiation and Pollard's Rho for efficient cryptographic analysis and practical demonstrations

Borrow This! – Python, Django, PostgreSQL, Javascript, HTML, CSS, Bulma CSS Library - *Capstone Project for General Assembly*
Developed a peer-to-peer rental community full stack web application that allows users to rent, reserve, and manage items, with features such as user profiles, reservations, and item status tracking.

EXPERIENCE

Software Engineer - General Assembly -- Remote Coding Bootcamp   2020
- Completed a 12-week immersive bootcamp covering Front End Web Development (HTML, CSS, JavaScript, jQuery, DOM manipulation), Full Stack App Development (Node, Express, MongoDB, EJS), Back End Development (Python, Django, PostgreSQL), as well as modern web frameworks focusing on React while utilizing Agile methodologies for project management.
- Developed and deployed projects including an interactive Tamagotchi game with front-end technologies, a full-stack application with a partner using Node, Express, and MongoDB, and a client-specific back-end project with Django and PostgreSQL as part of a team.
- Collaborated in Agile environments, participating in daily stand-ups, sprints, and Kanban boards, as well as a cross-functional UX/UI collaboration, and completed a full-stack Django application as a final individual project.

Motion Picture Lighting Console Programmer – Los Angeles California and Global   2017-2023
- Programmed lighting cues and managed control networks for 200+ devices across 100+ productions, overseeing millions in equipment and delivering technical solutions that ensured precision, reliability, and client satisfaction for top platforms like Netflix and Apple.

Rental Operations Manager – Geronimo Creek Film Company – Burbank Ca   2014-2017
- Led company growth by doubling inventory and staff, while developing systems for managing orders and employee training, tripling active orders and reducing errors, training time, and turnover.