

Nick Liu

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EDUCATION

University of Virginia

Expected: May 2026

Bachelor of Arts in Computer Science, Minor in Data Science

GPA: 3.96

- Relevant Coursework: Data Structures, Algorithms, Discrete Math, Linear Algebra, Computer Systems and Organizations, Full-Stack Web Development by Angela Yu

TECHNICAL SKILLS

Languages: Java, Python, C/C#, JavaScript, HTML/CSS, SQL

Frameworks: React, Unity

Developer Tools: Git, Docker, VS Code, PyCharm, IntelliJ, AWS, Vite, Node

Libraries: Pandas, NumPy, Networkx, Docx

EXPERIENCE

Data Driven Streets Research Assistant

June 2024 – Present

American University

Washington, DC

- Collected and analyzed traffic incident data from diverse sources including police reports, emergency medical services, and community input
- Automated data collection and analysis processes through Python and AWS tools (S3, Lambda, CDK, ECS, SQS)
- Utilized AWS CDK to schedule a lambda function to routinely collect data for school zones, allowing for research to be done on planning safer routes to school for students in dc
- Analyzed datasets with over 100,000 entries using DBeaver to find hot spots of pedestrian related accidents

Introductory Chemistry Teaching Assistant

Aug 2023 - May 2024

University of Virginia

Charlottesville, VA

- Fostered additional support for struggling students through weekly office hours
- Reinforced understanding of course material for students by guiding them through weekly discussion sessions

LEADERSHIP

Chinese Student Association

May 2022 - Present

Culture Chair (23-24), Treasurer (24-25)

Charlottesville, VA

- Managed over \$10,000 to fund events for a general body of 500+ students
- Led weekly meetings to speak on current club issues and further club initiatives of spreading Chinese Culture
- Coordinated and led two culture shows in celebration of Chinese culture, consisting of more than 100 people

PROJECTS

Workday Hours Processor | Python

July 2024

- Constructed a script that streamlines supervisor workflow by taking pdf files with employee data from workday and automatically filling out an employee time-sheet of the desired format
- Designed an efficient system for creating new time-sheets preventing duplication of redundant information

Screen Time Stopper | HTML, CSS, JavaScript

July 2024

- Designed a chrome extension promoting productivity that creates popups while users use social media apps to stop constant social media use
- Tested functionality through chrome developer tools to ensure the best experience for users

Puzzle Board Game | Unity, C#

May 2024

- Designed a puzzle game utilizing a swapping mechanism inspired by popular mobile game Puzzles and Dragons
- Applied pre-made assets from the Unity asset store to foster a more visually and audibly appealing user experience
- Utilized object-oriented design to design a clear and concise hierarchy for game objects to ensure smooth and efficient gameplay

ToyG Compiler | C

April 2024

- Parsed a simple language consisting of only integers, variables, and expressions through lex and yacc files
- Implemented basic logic (eg. if, else, and while operations) and variable expressions
- Compiled files with ToyG code into assembly utilizing a stack-based memory system