

# Trevor Nichols

## Contact

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## Career Object

Detail-oriented professional with experience in software development, API endpoint design and implementation, AI training and frontend design. Deep understanding in backend integration with Microsoft Azure, GitHub actions, and Nix CI/CD. Extensive experience in modeling, animating, and texturing 3D models for commercial purposes. Praised for creative problem-solving, meticulousness, and technical depth. Excels at the integration of computer programming and art.

## Skills

7+ years	6 years	4 years	3 years
<ul style="list-style-type: none"><li>Linux</li><li>Docker</li><li>Podman</li><li>Docker Compose</li><li>Systemd</li><li>Excel</li><li>Word</li><li>Powerpoint</li></ul>	<ul style="list-style-type: none"><li>Node.js</li><li>JS/TS</li><li>Github Actions</li><li>Java</li><li>Nix</li><li>C#</li><li>HTML</li><li>CSS</li><li>Python</li></ul>	<ul style="list-style-type: none"><li>MD Docs</li><li>QEMU</li></ul>	<ul style="list-style-type: none"><li>.NET</li><li>Azure</li><li>Microsoft Server</li><li>Ubiquiti Unifi</li><li>Docker Swarm</li><li>Quarto</li></ul>

## Personal Experience

### Research Contributor - Software Engineer

Sep 2024 - Ongoing

AI4EDU | Cleveland, OH, USA

- **Built REST backend services** for our AI chatbot using fastAPI
  - Integrating with multiple APIs including OpenAI, Anthropic, and Claude
  - Serves 2 research teams and 5+ classes on campus for over 100 people
  - Provides custom RAG and file access for models for individual teams and groups
- **Led the backend team** of 4 people
  - Enforced good coding practices and styles
  - Review and provide feedback on 100% of code changes
  - Led and implemented over 7 major features
- **Built and maintained databases** using PostgreSQL, DynamoDB, and Pinecone
  - Designed the database schema
  - Maintained and created database migrations
  - Maintain interfaces for various languages across the project

- **Developed workflows and CI/CD** using GitHub workflows to speed up delivery of our product
  - Sped up deployment times by over 75%
  - Created automated PR testing and checks, increasing team efficiency

## Facility Assistant

Oct 2023 - Ongoing

Tinkham Veale University Center | Cleveland, OH, USA

- **Worked on small and large teams** to prepare the venue for small and large events

## Audio Visual Technician

Sep 2023 - Ongoing

MediaVision | Cleveland, OH, USA

- **Maintained classroom technologies** including both audio and visual systems
- **Facilitated classroom recordings**

## Open Source Contributor

Aug 2022 - Ongoing

Contributed to

- NixOS/nixpkgs 19.3k stars
- tnichols217/obsidian-columns 200+ stars, 40k+ downloads (creator)
- Vinzent03/obsidian-git 7.3k stars

## Audio Visual Technician

Aug 2020 - Aug 2023

Penang Bible Church | Georgetown, Penang, Malaysia

- **Custom designed an AV system** within the restrictions of a space, needs, and budget
- **Developed preventative measures** to maintain audiovisual systems to reduce breakdowns or malfunctions by over 65%
- **Orchestrated livestreams** and live audio processing for events
- **Designed custom cables** for streamlining connections within an AV system

## IT Technician / Programmer Intern

Aug 2022 - Aug 2023

Dalat International School | Tanjung Bungah, Penang, Malaysia

- **Developed backend and frontend software** for identification services including UX design in Aurelia, backend implementation in C#, .NET, Azure functions, and SQL.
- **Developed inventory management systems** for all equipment within several organization's physical and network environments
- In depth knowledge of **Unifi** network management software to manage and maintain a private network

## 3D Modeler

Nov 2022 - Aug 2023

Sandm. Creative Agency | Georgetown, Penang, Malaysia

- Utilized **GIMP, Inkscape, Illustrator, Photoshop**
  - **Created textures** for 3D models
  - **Generated** bump, metalness, emission maps
- Utilized **Blender**

- **Modeled** hard surfaces including products, environments, packaging, and buildings
- **Sculpted** detailed natural shapes whilst maintaining a low poly count
- Utilized **physics simulations** to animate clothes, smoke, softbodies, and destruction
- Retopologized models to be **game and animation ready**
- Highly experienced at **generative geometry**, textures, and lighting
- Led over 50% of 3D design and modelling projects for the company

## Education

### Case Western Reserve University

Aug 2023 - May 2027

#### Bachelor of Science (B.S.) in Computer Science Candidate

Sec. Bachelors in Data Science, Computer Engineering, Electrical Engineering  
Cleveland, OH, US

Senior Status, GPA 3.805

Studied in

- |                                  |                           |
|----------------------------------|---------------------------|
| • Questbridge scholar            | • Artificial Intelligence |
| • University merit-based scholar | • Systems Programming     |
| • Dean's High Honors x2          | • Theoretical Statistics  |
|                                  | • Hardware Logic Design   |
|                                  | • Algorithms              |
|                                  | • Database Systems        |

Participated in

- The Fraternity of Theta Chi - Scholarship Chair since 2024
- CWRUnix (Case Linux Club) - Honorary exec member
- The Board Meeting - Active Member

### Dalat International School

Aug 2022 - Aug 2023

#### High School Diploma with Summa Cum Laude

Penang, Malaysia

GPA: 3.8642

Studied in

- |                                     |                      |
|-------------------------------------|----------------------|
| • 5: AP Computer Science A          | • 5: AP Calculus BC  |
| • 5: AP Computer Science Principles | • 5: AP Biology      |
| • 5: AP 3D Art and Design           | • 5: AP Physics I    |
| • 5: AP Statistics                  | • 4: AP Music Theory |