Oakland, CA 94705

Chase J. Nagle

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Education

Merced, CA — **University of California, Merced** — **Fall 2024 – Spring 2026**

- Cumulative GPA: 3.9
- Major: Computer Science and Engineering
- Coursework: Probability and Statistics, Algorithm Design and Analysis, Software Engineering, Full Stack Web Development

Pleasant Hill, CA — **Diablo Valley College** — **Fall 2021 – Spring 2024**

- Cumulative GPA: 3.6, Major GPA: 3.9
- Coursework: Calculus I-III, Linear Algebra, Differential Equations, Advanced/OOP C++, x86 Assembly, Algorithms and Data Structures, Discrete Mathematics, Physics I-II
- Certifications: Advanced C++ Programming and Object Oriented Programming in C++ (2022)

Employment

Programming Tutor/Teacher — **The CoderSchool Berkeley** — **April 2022 – July 2024**

Tutor (Private Lessons)

- Taught Python, Java, C++, C#.NET, Lua, and Scratch to students aged 7–18
- Guided students in developing their own projects, including games, websites, and preparation for AP Computer Science
- Adapted quickly to new software and frameworks to effectively teach students

Classes/Summer Camps

- Instructed classes of 6-13 students (ages 7-15) at the CoderSchool Berkeley location and local schools in the Berkeley area
- Created lesson plans and projects for students
- Cultivated an engaging and supportive learning environment, motivating students to excel

Camp Director (Summer 2023, 2024)

- Managed a team of 3-5 teachers and CITs across two camps.
- Helped organize and plan curriculum for the camp as well as student presentations.
- In Summer 2023, oversaw approximately 150 students during a 7-week camp program

Projects

- **C++, GLSL; Vulkan Rendering Engine; Dec 2024-Present**: Developed a Rendering Engine with Vulkan and C++. Implimented a deffered Vertex and Uniform Buffer Managers to Reduce Allocation Calls to 1 as well a very simple interface for user. Created a custom build script in python to compile shaders and compile program, simplifying cross platform development.
- **C++, GLSL; OpenGL Rendering Engine; Sep 2024 - Dec 2024**: Developed a Rendering Engine with OpenGL and C++. Included Cameras, Directional Lighting, and Model Loading. Implimented Shadow Maps as well as diffuse using the blinn-phong lighting model.
- **C++, GLSL; Compute Shaders; 2022**: Used Compute Shaders to create a particle simulation as well as a Reaction Diffusion simulation.
- **Javascript; WebGL; Portfolio Website; Jan 2025 - Present**: Created a Portfolio Website using React, Vite.js, and WebGL. Used glsl to create a pixel-art fire effect.
- **C++; OpenFrameworks; Particle-Life; 2023**: Implimented the Particle-Life simulation using Spatial Hashing for cheap lookups and a kernel to define interactions between particles. Designed to be easily expandable and modifiable (Add more groups, and modify kernel).
- **JavaScript, GoLang; Authentication Backend;** : Created an Authentication Backend using GoLang and MongoDB. Used JWT for authentication and bcrypt for password hashing. Later created again using Node.js and Express and AWS/postgreSQL.
- **JavaScript; P5js; Particle System**: Created another Particle system, this time using an ECS architecture to many custom interactions and objects. (Based on digital artist, Alex Miller).

Skills

- **Programming Languages**: C++, C, Java, C#.NET, Python, JavaScript, GoLang, HTML, CSS, Lua, GLSL, x86 Assembly.
- **Frameworks and Technologies**: OpenGL/WebGL, Vulkan, React, Node.js, Express, Vite.js, Vercel, MongoDB, AWS, PostgreSQL, Git, Docker, Unity, Godot.