Benjamin Aepli

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EDUCATION

Princeton University

Princeton, NJ

A.B. in Computer Science, Minors in Mathematics and Quantitative Economics

Aug. 2024 - Present

- Placed out of first year of computer science (COS126, COS217) with a "decisive A level performance"
- Coursework: Algorithms & Data Structures, Single-Variable Analysis
- Awards & Honors: COSCON 2nd Place Team (2024)

Jackson Hole Community School

Jackson, WY

High School Diploma

Aug. 2020 - June 2024

- GPA: 4.0/4.0, SAT: 1560/1600, ACT: 35/36
- Coursework: Linear Algebra, Multivariable Calculus, AP Calculus BC (5), AP Computer Science A (5)
- Activites: Student Government President, FTC Robotics Captain/Lead Programmer, Finance Club President
- Awards & Honors: National Merit Scholar, AP Scholar with Distinction

EXPERIENCE

Software/GIS Consultant

March 2024 – July 2024

Jackson, WY

- $Teton\ County\ Government$
 - Wrote conversions scripts using Python to manage county projects with SQLite databases and ArcGIS
 - Used GeoPandas and ArcPy to ensure all fields and geometry (coordinate data etc.) imported correctly
 - Designed an internal project visualization tool (complete with tabular data and a dynamic map) using React
 - Used ArcGIS's Maps SDK to draw a map within the UI and query for relevant project information

SKILLS

Languages: C++, Rust, C, Python, TypeScript, Java, HTML/CSS, SQL

Libraries & Frameworks: React, Node.js, Express, SvelteKit

Tools: Linux/Unix, Git, CMake, Cargo, Conda Technologies: Vulkan, OpenGL, ArcPy, Postgres

PROJECTS

EXAGE | C++, Vulkan, CMake

Aug. 2022 – Dec. 2023

- Developed a graphics engine in modern C++ and CMake with a full component/scene editor
- Implemented physically-based rendering, bindless resources, shadow maps, and a custom Vulkan abstraction

EXTRACURRICULAR ACTIVITIES

TigerApps Software Engineer

Sept. 2024 – Present

- Worked on TigerReTail V2 (student marketplace) backend with SvelteKit, Postgres, Drizzle
- Designed DB schema for users, authentication, and posts, and created script to migrate from original TigerReTail

Princeton Robotics PacBot Software Team | Embedded C, ESP-32

Sept. 2024 – Present

Princeton Robotics RoboCup Software Team

Sept. 2024 – Present

• Used UDP communication and protobuf to control simulated robots in async Rust

FAA Licensed Private Pilot

Aug. 2022 – Present