John Smith

+1 (555) 123-4567 — john.smith@example.com — github.com/johnsmith

Education

BSc in Computer Science
State University, Springfield, State *Sep 2020 - May 2024 (expected year of graduation)*

Relevant Skills

- **Programming: C**, **C++**, **Java**, **Python**, Haskell, R, Racket, Rust, SML. AVR assembly.
- **Operating systems:** Comfortable working in **UNIX**-based operating systems **(macOS, Linux)** and **Windows**. Familiarity with operating systems concepts, such as virtualization and concurrency.
- **Computer networks:** Familiarity with computer networking fundamentals (**HTTP**, **DNS**, the socket abstraction, **TCP** and **UDP**, and further down the network stack). Exposure to networking tools (e.g. **Wireshark**).
- **Version control: Git**, GitHub.
- **Developer tools:** Sanitizers such as ASan, UBSan; lcov; testing via Catch2; debugging via GUI debuggers.
- **Miscellaneous:** Exposure to **machine learning** (ML) and database systems (**SQL**, MySQL).

Current Studies

- **Personal website:** Learning the tools required to create a simple static site that will serve as a personal blog.
- **C++:** Deepening knowledge of **C++** via rigorous *Advanced Programming Techniques for Robust and Efficient Computing*, to cover such topics as: compile-time vs run-time computation (templates, constexpr), exception safety and RAII, smart pointers and move semantics, multithreading and thread safety. (And much more!)
- **Compilers:** Studying compiler construction in a project-based course. By the end of the term, we will have implemented a **C-like** programming language called Seelish, using ANTLR4 to assist with the implementation of the compiler front-end, and targeting **Java Virtual Machine (JVM) bytecode**.

Highlighted Project

Interactive SPH-Based Fluid Simulation
Technologies used: C++, legacy OpenGL, glm (OpenGL mathematics), Tcl/Tk *Nov. 2024 - Dec. 2024*

Completed as a part of the requirements for a course on computer animation, provided an implementation of SPH-based fluid simulation in keeping with details suggested by a seminal research paper on the topic, also integrating results from other works.

Work Experience

Teaching Assistant for *Data Structures*
State University, Springfield, State *Part-time, Jan. 2025 - May 2025*

Assisted with grading (via in-person code reviews as well as exam marking) and exam invigilation.

Teaching Assistant for *Algorithms and Complexity*
State University, Springfield, State *Part-time, Sep. 2023 - Dec. 2023*

Utilized a **CLI** written in **Python** to partially automate grading tasks. The program writes student submissions to a file for display in **VSCode**, outputs grading prompts to the terminal, and collects grading inputs via standard input. It compiles grading data into a **.csv** file formatted for submission to the learning management platform. Additional responsibilities included conducting lab sessions and invigilating exams.

Operations Associate
Industrial Solutions Inc., New York, NY *Full-time, Feb. 2018 - Aug. 2021*

In concert with the manager, managing partner, and broader team, facilitated safe and effective operation of facilities. Responsibilities included: arrangement of orders from various suppliers; managing billing for commercial accounts; maintaining online storefront operations; ensuring physical and environmental safety of the premises; opening/closing (key holder); training new staff; delivering exceptional customer service in a fast-paced environment.

Service

Co-President of Tech Innovation Club
State University, Springfield, State *Part-time, Jan. 2025 - Present*

Responsibilities to include: setting direction for the club, maintaining relations with the university, planning and leading meetings.