Paige Weber

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I am a full-stack developer with 7 years of experience in application development and 1.5 years of experience doing original research in computer architecture. I am looking forward to providing performant solutions without compromise at my next position.

Summary of Skills

- 7 years' experience building native applications using C, C++, and Python in both academic and commercial settings.
- Professional experience with OpenMP, Intel intrinsics, and performance monitoring software (LIKWID).
- Professional experience in full-stack web development using Angular, Postgresql, MySQL, MongoDB, Java, Springboot, MQTT, RabbitMQ, NodeJS, Typescript, Javascript, php, Ruby, and SASS/SCSS.
- Professional DevOps experience with GitLab pipelines and docker.
- Experience with SWIG, scikit-learn, TensorFlow, WebGL, and CUDA.

Experience

Sep 2021 – Sep 2023

Engineering Scientist Associate, Applied Research Laboratories, University of Texas at Austin

- Doubled the performance of a mission-critical C++ message passing library. Added compatibility for approximately 10 new types in the SWIG python interface for this product, responding directly to the needs of python developers.
- Maintained software in C++ and Python that provides real-time GPS data to the department of defense.
- Managed the creation of GitLab continuous integration pipelines that used Docker to automate building, testing, code health report generation, and packaging for two high-priority applications.

Jan 2020 – Jun 2021

Research Assistant, University of North Carolina at Charlotte

- Managed an individual C/C++ project to create a custom profiling software using hardware counters (model-specific registers) which analyzed architecture performance on sparse graph problems.
- Used Intel intrinsics, OpenMP, and likwid-perfctr to benchmark desktop systems and compute clusters.

May 2019 – Aug 2019

IT Intern – Innovation & Development, Sealed Air

- Participated in an agile team tasked with improving an Industrial-IoT application used by factories in three countries.
- Developed software to provide data for a visualization used to communicate common fault codes to senior executives. This enabled the usage of data as recent as the current minute.
- Used R, Python, RabbitMQ, ThingWorx, and Java.

Jan 2017 – Dec 2017

Computer Support Representative, Brigham Young University – Center for Teaching and Learning

- Managed conversion of paper processes to web applications affecting two departments and over 110 employees.
- Maintained 50 servers which provided access to over 200 websites for many departments across campus.
- Sourced and supported hardware for animators, graphic designers, video editors, and programmers.

Education

Jun 2021

M.S. in Computer Science, Systems Emphasis, University of North Carolina at Charlotte

- "High Performance Computing" – Crafted accelerated algorithms with CUDA, Intel intrinsics, and OpenMP.
- "Machine Learning" – Used python, numpy, and scikit-learn to implement common machine learning algorithms such as Least Squares, Linear Discriminant Analysis, and Q-Learning without the use of an existing API.
- "Computer Graphics" – Created a linear algebra library, optimized graphics routines in WebGL, implemented "boids".

Dec 2020

B.S. in Computer Science, Systems Emphasis, Minor in Mathematics, University of North Carolina at Charlotte

- "Parallel Computing" - Modeled performance and parallelized algorithms using OpenMP and OpenMPI.