ALGORITHM MODELING SOFTWARE ENGINEER

Posting ID: EM20313555
Company Website: facebook.com
Company: Facebook
Work Location: Menlo Park, CA
Position Type: Full-Time
Salary:
College Major(s): Electrical/Computer Engineering (EE/CpE), Computer Science (CS)
College Level(s): Undergraduate-Senior, Graduate Student, PhD. Student, Alumni

OVERVIEW

Facebook's mission is to give people the power to build community and bring the world closer together. Through our family of apps and services, we're building a different kind of company that connects billions of people around the world, gives them ways to share what matters most to them, and helps bring people closer together. Whether we're creating new products or helping a small business expand its reach, people at Facebook are builders at heart. Our global teams are constantly iterating, solving problems, and working together to empower people around the world to build community and connect in meaningful ways. Together, we can help people build stronger communities - we're just getting started.

Roles and Responsibilities
Facebook AR/VR focuses on delivering Facebook's vision through Augmented Reality (AR) and Virtual Reality (VR). The compute performance and power efficiency requirements of Virtual and Augmented Reality require custom silicon. Facebook Silicon team is driving the state of the art forward with breakthrough work in computer vision, machine learning, mixed reality, graphics, displays, sensors, and new ways to map the human body. Our chips will enable AR and VR devices where our real and virtual world will mix and match throughout the day. We believe the only way to achieve our goals is to look at the entire stack, from transistor, through architecture, to firmware, and algorithms. We are seeking an Algorithm Modeling Firmware Engineer to support C++ modeling of computer vision, ML and other algorithms implemented in dedicated hardware accelerators (HWA) which are used inside our ASICs. The successful candidate will be part of a team that includes algorithm, software, firmware and hardware design and verification experts. The ideal candidate will understand algorithms, C++ modeling, virtual platforms, and firmware development processes. This is a full-time position based in either our Redmond, WA or Menlo Park, CA offices.

Education and Qualifications
Work with IP Architect to delineate and develop C++ models for algorithms that will get implemented in hardware.
Support use of C/C++ models for architectural modeling and algorithm benchmarking.

Support integrating the models into Virtual Platform by SystemC wrappers for early firmware development.

B.S. degree in Computer Science or Electrical Engineering or equivalent experience.

2+ years of hands-on low-level programming experience including bit-level manipulation of data.

Knowledge in algorithms, data structures, software design and programming experience in C/C++ for development, debugging, testing and performance analysis.

Experience in writing, manipulating and maintaining scripts – Python or similar (Perl, Bash/AWK, Tcl)

Preferred Skills
M.S. degree in Computer Science or Electrical Engineering.

Knowledge of audio, image, video and computer vision processing including file formats, metadata and related techniques for digital signal processing.

Knowledge of deep learning techniques such as CNN.

Experience with SystemC modeling.

Experience in reference model development.

How to Apply
https://facebook.dejobs.org/menlo-park-ca/algorithmm-modeling-software-engineer/7E9DABA20367421383BFBB775B3AFC1F/job/?vs=5082&utm_source=Symplicity-DE&utm_medium=XMILFeed&utm_campaign=Symplicity