

PROV #: 004649  
REQUISITION:

UNIVERSITY OF CALIFORNIA, SANTA BARBARA  
JOB DESCRIPTION

Classified By:  
Broen, Linda

**Decision Date:**  
04-05-2019

<b>EMPLOYEE NAME:</b> Jingjun Zhang		<b>EMPLOYEE ID:</b>		<b>NEW HIRE START DATE:</b>	
<b>APPROVED PAYROLL TITLE:</b> STDT INTERN		<b>TITLE CODE:</b> 4740	<b>WORKING TITLE:</b> Student Intern		<b>RECLASSIFICATION EFFECTIVE DATE:</b>
<b>JOB FAMILY:</b>		<b>JOB FUNCTION:</b>	<b>JOB LEVEL:</b>		<b>JOB LEVEL CODE :</b>
<b>PERCENT OF TIME:</b> 100.00	<b>CBU:</b> 99 - Non-Represented (PPSM)	<b>ERC:</b> E	<b>GRADE TYPE:</b> ST	<b>GRADE:</b> 1	<b>FLSA STATUS:</b> Non-Exempt
<b>APPT TYPE:</b> Lmtd Appt		<b>DEPARTMENT/DIVISION:</b> COMS-Computer Science		<b>WORK LOCATION:</b> HFH 5120A	
<b>NAME OF SUPERVISOR:</b> Yufei Ding		<b>SUPERVISOR'S PAYROLL TITLE:</b> Assistant Professor			<b>NAME OF DEPARTMENT HEAD:</b> Matthew Turk
<b>EMPLOYEE'S FORMER PAYROLL TITLE:</b>				<b>NAME OF PREVIOUS INCUMBENT:</b>	
<b>HR APPROVED ACTION:</b>	<b>TEMP BEGIN DATE:</b>	<b>TEMP END DATE:</b>	<b>LTD APPT BEGIN DATE:</b>	<b>LTD APPT END DATE:</b> 09/15/2019	<b>END DATE (OTHER):</b>
<b>TYPE OF SUPERVISION RECEIVED:</b> Close supervision					
<b>NAME OF EMPLOYEES DIRECTLY SUPERVISED:</b>					
<b>GENERAL SUMMARY OF DUTIES AND RESPONSIBILITIES:</b> Unpaid internship assisting a team of PhD students and a faculty on a project developing compiler-centric optimization framework for efficient deep video processing algorithms on compressed videos. The intern ultimately develops a compiler frontend prototype that could transform a video analytics program that targets raw video to a new program that supports compressed video, and evaluates the prototype with help from the students and faculty supervisor. The internship will benefit the intern's overall academic objectives and provide him top-quality research exposure.					
<b>KNOWLEDGE, SKILLS AND ABILITIES:</b> Minimum: High level experience with computer programming; basic computer science courses such as those typically taken during the first two years of CS undergraduate studies.  Desired: Familiarity with compiler optimization techniques, redundancy elimination, loop unrolling, and data locality optimization; experience building a small compiler prototype supporting direct deep streaming analytics on compressed video. Research experience such as experiment design and testing.					

### JOB FUNCTIONS AND DUTIES

Listed below are the job Functions and Duties, both Essential and Non-Essential, listed in order of importance. Essential duties define the methods, procedures, and techniques by which essential functions are carried out. They show what is done, how it is done, and why it is done. Non-Essential functions are duties that are a peripheral, incidental or minimal part of the job. Removal of a Non-Essential duty would not fundamentally change the job.

The total percentage of all Essential and Non-Essential duties must add up to 100%, regardless of part-time status.

Order of Imp	Essen Duty	%	Freq.	Function	Duties
1	Yes	100	Daily	Programming and experiment design	Assists a team of PhD students and a faculty supervisor on a project exploring efficient deep video processing algorithms on compressed videos, and building an automatic compiler-centric optimization framework for efficient CNN model construction and deployment on various hardware platforms. Under the close supervision of the faculty supervisor, the intern learns about various techniques for CNN model construction, efficient deployment on hardware accelerators like GPU and FPGA, as well as common compiler optimization toolchains. Also summarizes the research findings in a technical manuscript. The subject of the aforementioned research is related to other projects underway in faculty member's lab, and the intern works alongside graduate students conducting similar investigations. It is expected that all job duties will benefit the intern's overall academic objectives.

## PHYSICAL, MENTAL AND ENVIRONMENTAL REQUIREMENTS

## PHYSICAL

Continuously=Activity occurs > 66%  
Frequently=Activity occurs 33% to 66%  
Occasionally=Activity occurs < 33%  
Not Applicable=Activity does not exist

On the job, the employee must:

Stand: **FREQ.**

**Walk:** OCCAS.

Bend: N/A

Sit: **FREQ.**

**Crouch / Squat:** N/A

**Kneel / Crawl:** N/A

Climb: N/A

**Reach Above Shoulder Level: N/A**

**Use Keyboard / Mouse:** CONTIN.

**HAND ACTIVITIES:**

**Fine Dexterity:** N/A

**Hand Twisting:** N/A

Simple grasping: N/A

Power grasping: N/A

Other:

**Frequency of Other Activity:** No Response

**LIFTING ACTIVITIES:**

**Light lifting (<20 lbs):** N/A

**Moderate lifting (20-50 lbs):** N/A

Heavy lifting (>50 lbs): N/A

**PUSH / PULL ACTIVITIES:**

Light pushing / pulling (<20 lbs of force): N/A

**Moderate pushing / pulling (20-50 lbs of force):** N/A

**Heavy pushing / pulling (>50 lbs of force):** N/A

## MENTAL

Continuously=Activity occurs > 66%  
Frequently=Activity occurs 33% to 66%  
Occasionally=Activity occurs < 33%  
Not Applicable=Activity does not exist

On the job, the employee must be able to:

Read/comprehend:	CONTIN.
Write:	CONTIN.
Perform Calculations:	CONTIN.
Communicate Orally:	CONTIN.
Reason and Analyze:	CONTIN.
Other:	
Frequency of Other Activity:	No Response

**ENVIRONMENTAL**

Continuously=Activity occurs > 66%  
Frequently=Activity occurs 33% to 66%  
Occasionally=Activity occurs < 33%  
Not Applicable=Activity does not exist

On the job, the employee:

Is exposed to excessive noise:	N/A
Is around moving machinery:	N/A
Is exposed to marked changes in temperature and/or humidity:	N/A
Is exposed to dust:	N/A
Is exposed to fumes:	N/A
Is exposed to gases:	N/A
Is exposed to radiation:	N/A
Is exposed to microwave:	N/A
Drives motorized equipment:	N/A
Works in confined quarters:	N/A
Other:	
Frequency of Other Activity:	No Response

**SPECIAL CONDITIONS OF EMPLOYMENT:**

The below licenses, certificates, credentials, bondability, altered work schedules, furloughs, travel, etc are required for this position:

JingrunZHANG

Employee's Signature

Yunfei S

Supervisor's Signature

Qiu

Department Head's Signature

07-03-2019

Date

07/03/2019

Date

7-12-19

Date

A Supervisor must give an Employee a copy of his/her signed job description upon hire, update or reclassification.

Retention: Department's Personnel File  
Date Printed: Apr 15 2019 2:49PM