

WATERLOO | CO-OPERATIVE EDUCATION

Student Performance Evaluation

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 20382498
 Spring 2014
 3B Mechatronics Engineering
 Lumotune Inc

Job Title: Hardware Design Engineering

Job Description: Summary Lumotune Inc. is a startup focused on commercializing innovative nanotechnology developed at UW, with the vision of creating flexible, transparent electronic displays. Lumotune is seeking a Hardware Design Engineer to assist in the development, integration and deployment of a new display controller/driver. This position requires the individual to take initiative in designing and developing electronics hardware from a set of systems requirements. The hardware developed by the individual will be the first of its kind in the world. This job is a great opportunity for more senior candidates who want exposure to the startup scene to do work of great impact, while having technical mentorship. The successful candidate will have a chance to work in the startup environment at the VeloCity Garage, alongside many successful startups such as Voltera. He/she will be working with the rest of the Lumotune team, while working more closely with the Sr. Hardware Design Engineer. Responsibilities - Develop hardware designs to interact with the Electric Imp µ microcontroller via Wi-Fi to control LCD films- Manage the build of prototype and pre-production units and subsequently support to moving the design into production - Functioning as the hardware authority to lead the design, selection and sourcing of hardware components including: processors, peripherals and discrete components - Designing, implementing and bringing up electronics hardware from a set of systems requirements - Leading predominantly electronics hardware development projects with some mechanical development work - Embedded software related work will involve support utilities for production processes, device programming and unit configuration - Developing schematics, PCB layouts and prototype testing - digital, analog and mixed signal designs - Managing schematic entry, board and component layout, creating and maintaining parts libraries - Developing test plans and board bring up (hands on) for initial prototypes Required Skills - Demonstrated success in creating novel hardware designs to solve interesting technical challenges - Strong analytical, test and hardware debugging skills - Ability to extract component level requirements and implement circuitry from overall system requirements - Ability to analyze and select components to meet cost/performance tradeoffs - Schematic and PCB CAD design experience/skills using CadSoft EAGLE - Programming & scripting expertise is a plus Other Job Details Benefits - Take the lead on development of a commercial product with little to no 'hand-holding' - Working with a dedicated, multidisciplinary team consisting of recent UW grads - Social events such as team lunches, hub happenings and summer BBQ's - Networking opportunities with companies at the Communitech Hub, including Google and Christie Digital - Opportunity to learn about startup operations including product development, research and design, finance and legal.

1. Interest in Work. The degree to which the student pursues goals with commitment and takes pride in accomplishments.				
○ 1	○ 2	○ 3	○ 4	○ 5
Developing Performance		Good Performance		
<ul style="list-style-type: none"> Shows little enthusiasm for assigned work, infrequently requests additional tasks 		<ul style="list-style-type: none"> Enthusiastic about their assignments/work, agreeable to new responsibilities, asks for new tasks 		
○ 6	● 7	Not Observed		
Superior Performance				
<ul style="list-style-type: none"> Displays enthusiasm for work that is beyond their job requirements; proactively seeks new tasks and responsibilities 				

2. Ability to Learn. The extent to which the student becomes proficient with job duties and work processes.				
○ 1	○ 2	○ 3	○ 4	○ 5
Developing Performance		Good Performance		
<ul style="list-style-type: none"> Sometimes slow to become proficient at new tasks or work processes 		<ul style="list-style-type: none"> Quick to become proficient at new tasks 		
○ 6	● 7	Not Observed		
Superior Performance				
<ul style="list-style-type: none"> Exceeds expectations in the complexity and difficulty of work they are able to successfully complete 				

3. Quality of Work. The ability of the student to set high standards for own personal performance; strive for quality work; put forth extra effort to ensure quality work.				
○ 1	○ 2	○ 3	○ 4	○ 5
Developing Performance		Good Performance		
○ 6	● 7	Not Observed		
Superior Performance				

<ul style="list-style-type: none"> • Work does not meet expectations, has more than the expected number of errors 	<ul style="list-style-type: none"> • Work is usually very thorough and well done, few errors 	<ul style="list-style-type: none"> • Work is always very thorough and of excellent quality, few if any errors
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4. Quantity of Work. The volume of work produced by the student, along with his or her speed and consistency of output.							
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input checked="" type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance <ul style="list-style-type: none"> • Does not always complete work within time limits 		Good Performance <ul style="list-style-type: none"> • Completes the majority of work within specified deadlines 			Superior Performance <ul style="list-style-type: none"> • Consistently completes work ahead of schedule; seeks additional tasks 		

5. Problem Solving. The student's demonstrated ability to analyze problems or procedures, evaluate alternatives, and select the best course of action.							
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input checked="" type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance <ul style="list-style-type: none"> • Can make routine decisions but needs guidance and checking 		Good Performance <ul style="list-style-type: none"> • Can be relied upon to make good decisions, requires limited guidance 			Superior Performance <ul style="list-style-type: none"> • Independently manages complex tasks and makes good decisions for work without guidance 		

6. Teamwork. The degree to which the student works well in a team setting.							
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input checked="" type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance <ul style="list-style-type: none"> • Sometimes uncooperative; or experiences difficulty relating to others 		Good Performance <ul style="list-style-type: none"> • Frequently cooperative, good team worker 			Superior Performance <ul style="list-style-type: none"> • Consistently cooperative, proactively seeks to improve working relationships 		

7. Dependability. The manner in which the student conducts his or herself in the working environment.							
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input checked="" type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance <ul style="list-style-type: none"> • Displays an inconsistent work ethic and does not always report to work on time or has some attendance issues 		Good Performance <ul style="list-style-type: none"> • Displays a strong work ethic and is present at work and meetings in a reliable and timely manner 			Superior Performance <ul style="list-style-type: none"> • Displays an excellent work ethic and volunteers to adapt personal schedule to meet work demands 		

8. Response to Supervision. The manner in which the student responds to direction and constructive criticism.							
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input checked="" type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance <ul style="list-style-type: none"> • Sometimes disregards direction and feedback from supervisor 		Good Performance <ul style="list-style-type: none"> • Integrates feedback from supervisor into their work to improve productivity & efficiency 			Superior Performance <ul style="list-style-type: none"> • Takes the initiative to follow through on all feedback from supervisor and to continuously improve upon their daily tasks and approach to work 		

9. Reflection. The student's demonstrated ability to learn and adapt from previous experience.							
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input checked="" type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance <ul style="list-style-type: none"> • Has to be told many times before they modify their behaviour or approach to new work based on errors in previous performance 		Good Performance <ul style="list-style-type: none"> • Occasionally needs reminder to modify their behaviour or approach to new work based on errors in previous performance 			Superior Performance <ul style="list-style-type: none"> • Independently recognizes the errors in previous performance and proactively modifies their behaviour and approach to new work 		

10. Resourcefulness. The student's demonstrated ability to develop innovative solutions and display flexibility in unique or demanding circumstances.							
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input checked="" type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> Not Observed
Developing Performance <ul style="list-style-type: none"> • Unsure how to approach new or stressful situations; has difficulty adjusting to changing priorities and circumstances 		Good Performance <ul style="list-style-type: none"> • Responds appropriately to new or stressful situations; can adjust to changing priorities and circumstances with guidance 			Superior Performance <ul style="list-style-type: none"> • Generates effective resolutions to new or stressful situations; readily adjusts to changing priorities and circumstances 		

11. Ethical Behaviour. The extent to which the student's behaviour demonstrates integrity and ethics in work and relationships.							
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input checked="" type="radio"/> Not Observed
Developing Performance <ul style="list-style-type: none"> • Needs guidance in making appropriate choices to avoid questionable conduct 		Good Performance <ul style="list-style-type: none"> • Is able to make the appropriate choices to avoid questionable conduct and/or a 			Superior Performance <ul style="list-style-type: none"> • Proactively identifies potential conflicts of interest or questionable conduct and acts to 		

and/or a conflict of personal and professional interests	conflict of personal and professional interests	avoid or mitigate these issues
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12. Appreciation of Diversity. The degree to which the student shows understanding and sensitivity to needs and differences of others (i.e. ethnicity, religion, language, etc.)

<input type="radio"/> 1 <input type="radio"/> 2	<input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 6 <input checked="" type="radio"/> 7 <input type="radio"/> Not Observed
Developing Performance • Has difficulty interacting with others due to individual differences	Good Performance • Has positive interactions with others and is respectful of individual differences	Superior Performance • Demonstrates leadership in promoting positive interactions and encouraging others to work together despite individual differences

13. Entrepreneurial Orientation. The student's demonstrated ability to take informed risks that demonstrate creativity and add value to the company.

<input type="radio"/> 1 <input type="radio"/> 2	<input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 6 <input type="radio"/> 7 <input checked="" type="radio"/> Not Observed
Developing Performance • Has difficulty evaluating alternative ideas and making choices that enhance the department or organization	Good Performance • Able to evaluate alternative ideas and will sometimes make choices that enhance the department or organization	Superior Performance • Able to effectively evaluate alternative ideas and independently makes choices that enhance the department or organization

14. Written Communication. The extent to which the student demonstrates effective written communication.

<input type="radio"/> 1 <input type="radio"/> 2	<input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input checked="" type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> Not Observed
Developing Performance • Not consistently clear and concise or requires frequent checking and editing	Good Performance • Normally clear, well organized and understandable and needs only moderate checking and editing	Superior Performance • Always clear, well organized and easily understandable; rarely requires checking and editing

15. Oral Communication. The extent to which the student demonstrates effective oral communication.

<input type="radio"/> 1 <input type="radio"/> 2	<input type="radio"/> 3 <input type="radio"/> 4 <input checked="" type="radio"/> 5	<input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> Not Observed
Developing Performance • Occasionally encounters difficulty with expressing ideas clearly and persuasively; demonstrates discomfort with public speaking	Good Performance • Normally clear, well organized, understandable, and persuasive, good public speaker	Superior Performance • Always clear, well organized, easily understandable, and exceptionally persuasive, excellent public speaker

16. Interpersonal Communication. The extent to which the student effectively listens, conveys, and receives ideas, information, and direction.

<input type="radio"/> 1 <input type="radio"/> 2	<input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input checked="" type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> Not Observed
Developing Performance • Displays inconsistent listening skills and is reluctant to seek input from others	Good Performance • Interactions with others demonstrate acceptable listening skills and the ability to sometimes seek the opinions, ideas, and expertise of others	Superior Performance • Interactions with others demonstrate exceptional active listening skills and the ability to proactively seek the opinions, ideas, and expertise of others

OVERALL PERFORMANCE RATING

<p>Outstanding Performance</p> <ul style="list-style-type: none"> The student has significantly exceeded all behavioural and developmental performance expectations in respect to output, quality standards, delivery of goals and assignments This rating is reserved for only those few students who have distinguished themselves by their unique contribution or exceptional performance <p>Your written comments are required below in order to register the rating of Outstanding.</p> <p>Jeremy has been an integral part of the team here at Lumotune and his work and contribution has been substantial in advancing the projects he worked on in the company. Furthermore his aptitude for learning and improving his knowledge and skills has been shown through his hardworking nature. His work on designing our next generation display drivers has been monumental and we would not be close to where we are without his help. The main strengths I was able to observe in the past couple of months: √ Enthusiasm and self improvement: Throughout the work term, Jeremy has shown that he is always eager to learn new things. This ranged from circuit theory, to optimal soldering techniques, to layout design. He also responds very well to feedback given throughout the term and has consistently improved his understanding of hardware and circuit theory and has grown substantially throughout the term. √ Work Ethic: Tying in to the above, Jeremy is very hard working and dedicated towards his work. In order to meet deadlines, he was willing to stay very late many days in order to provide quality work on</p>	<input checked="" type="radio"/>
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schedule. This work ethic is also one of the driving factors behind his self-improvement throughout the term. ζ Quality of Work: Jeremy consistently provides work that is at the best of his ability and will always make sure that the work he submits is up to par. Out of all the traits, this is the most unique since most students I have encountered will submit work that meets the requirements, rather than actually trying to achieve the best possible. Jeremy has been an Outstanding member of the team and I wish him all the best in whatever chooses to pursue.	
Excellent Performance <ul style="list-style-type: none"> The student has exceeded all performance expectations in respect to output, quality standards, delivery of goals and assignments Receiving this rating means the manager is delighted with this student's performance 	<input type="radio"/>
Very Good Performance <ul style="list-style-type: none"> The student has met all and exceeded some performance expectations in respect to output, quality standards, delivery of goals and assignments Receiving this rating means the manager is very pleased with this student's performance 	<input type="radio"/>
Good Performance <ul style="list-style-type: none"> The student meets performance expectations in respect to output, quality standards, delivery of goals and assignments Receiving this rating means the manager is pleased with this student's performance 	<input type="radio"/>
Satisfactory Performance <ul style="list-style-type: none"> The student has not fully met the performance expectations in respect to output, quality standards, delivery of goals and assignments Receiving this rating means the manager is mostly satisfied with the student's performance 	<input type="radio"/>
Marginal Performance <ul style="list-style-type: none"> Overall performance requires improvement and/or certain key aspects of performance require improvement while other aspects may be satisfactory Receiving this rating means the manager is displeased with this student's performance 	<input type="radio"/>
Unsatisfactory Performance <ul style="list-style-type: none"> The student did not meet performance requirements 	<input type="radio"/>

Supervisor's Comments - Please comment on the student's overall job performance.

Jeremy has been an integral part of the team here at Lumotune and his work and contribution has been substantial in advancing the projects he worked on in the company. Furthermore his aptitude for learning and improving his knowledge and skills has been shown through his hardworking nature. His work on designing our next generation display drivers has been monumental and we would not be close to where we are without his help. The main strengths I was able to observe in the past couple of months: ζ Enthusiasm and self improvement: Throughout the work term, Jeremy has shown that he is always eager to learn new things. This ranged from circuit theory, to optimal soldering techniques, to layout design. He also responds very well to feedback given throughout the term and has consistently improved his understanding of hardware and circuit theory and has grown substantially throughout the term. ζ Work Ethic: Tying in to the above, Jeremy is very hard working and dedicated towards his work. In order to meet deadlines, he was willing to stay very late many days in order to provide quality work on schedule. This work ethic is also one of the driving factors behind his self-improvement throughout the term. ζ Quality of Work: Jeremy consistently provides work that is at the best of his ability and will always make sure that the work he submits is up to par. Out of all the traits, this is the most unique since most students I have encountered will submit work that meets the requirements, rather than actually trying to achieve the best possible. Jeremy has been an Outstanding member of the team and I wish him all the best in whatever chooses to pursue.

Student's Comments - Please comment on your overall performance including your ability to achieve learning objectives and your future employment expectations.**Supervisor's Recommendations** - Please provide your recommendations for the student's personal and/or professional development (optional).

Along with the points above, I'd like to add some other points that Jeremy can further improve upon for any of his future endeavours: ζ Oral Communication: Improving his ability to communicate his ideas, especially since he has some very good ideas but did not communicate them especially in the beginning of the term. ζ Problem Solving: I would like to see Jeremy improve on his ability to provide his own solutions to some of the issues encountered throughout the term.

*** required fields**

***Did you review the completed evaluation form with the student?** Please ensure the student has a copy.

Yes No

***Do you wish to have the student return for the next work term?**

Yes No Not Applicable

***If yes, have you offered to re-employ the student for the next work term?**

Yes

No

To be determined

If yes, was your offer:

Accepted

Declined

If the student accepted, please confirm the work term dates:

Dates

To be determined

Co-operative Education will contact you to confirm new job details.

Supervisor: Aman Muthreja

Title: Lead Hardware Engineer

Management/Human Resources: Shafi Siddiqi

Title: Co-Founder