Dear CSE Students:

Welcome to the third newsletter of the summer 2014 semester.

<table>
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<tr>
<th>Undergraduate Program (CS and CpE):</th>
<th>Hope you are having a great summer!</th>
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<tr>
<td>Undergraduate Program (IT):</td>
<td>Are you a potential Fall 2014 Graduate? Make sure you have a signed and approved copy of your IT Senior Project, Letter of Intent and Contract for Senior Project before the first day of classes for Fall, August 25.</td>
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| Graduate Program: | Upcoming important deadlines: Admission to Candidacy - July 25; Application for Graduation for Fall - August 1; Sign-up for Fall Qualifiers - August 29. Please see the CSE Graduate Calendar for other deadlines. |

Attached are announcements for the following (please note that this listing does not imply University or Department endorsement in any way):

- USF Student Innovation Incubator
- Gain Job Experience in Health Care Analytics Before You Graduate – part-time job
- Software Engineer-Next Gen Router-NCG (Ericsson, San Jose)
- New College Grad Software Developer (Ericsson, Vienna, VA)
- New College Grad Software Tester (Ericsson, Vienna, VA)
- Systems Software Architect & Developer - IP Systems Prototypes (Ericsson, San Jose)
- Systems Architect & Developer - Hardware Architect (Ericsson, San Jose)
- Customer Support Engineer at Impulse Point

Regards,

Ken Christensen
Director of the Undergraduate Program (and Newsletter Editor)
Email: christen@csee.usf.edu
Student Innovation Incubator

APPLICATIONS ARE NOW BEING ACCEPTED

WHAT:
The Student Innovation Incubator (SII) is a student run incubator created to help USF Student Entrepreneurs prototype and commercialize innovative products and services into successful, scalable ventures.

LOCATION:
Research Park – USF CONNECT Student Innovation Incubator
3802 Spectrum Blvd Suite 110

APPLY NOW
TINYurl.com/USFSII

Applications due by SEPTEMBER 14TH 2014

CONTACT
KeoshaPoole@usf.edu for more information

WHY APPLY?
- Receive support and increase the success potential of your venture
- Gain access to successful Tampa Bay entrepreneurs, venture funding coaching, and more...
- SII Companies are granted access to subject matter experts from numerous disciplines, mentoring, and professional and collaborative office space
- Interact with like-minded student entrepreneurs in a supportive environment

WHO CAN APPLY?
Graduate and Undergraduate Students from all disciplines
Gain Job Experience in Health Care Analytics
Before You Graduate

A small, local consultancy in health care research and analytics is seeking a student to help with programming and modeling, on a contract (non-employee) basis.

The skills required include the ability to:

- help perform exploratory data analysis including principal components analysis, predictive modeling, model evaluation, and statistical analysis in R;
- help write SQL queries;
- communicate clearly (verbally and in writing) your methods and results for each project

Hours are flexible, approximately 2 – 10 hours per week.

You will work from home, with semi-regular meetings in person. These can be on campus if you don’t have a car.

Please direct all inquiries to KJONES@QHR-ECON.com
Software Engineer-Next Gen Router-NCG
Job Level: Software Engineer
Job Location: San Jose, CA, USA

Ericsson Overview
Ericsson is the world’s leading provider of communications technology and services. Our offerings include services, consulting, software and infrastructure within Information and Communications Technology. Using innovation to empower people, business and society, Ericsson is working towards the Networked Society: a world connected in real time that will open up opportunities to create freedom, transform society and drive solutions to some of our planet’s greatest challenges. We are truly a global company, operating across borders in over 180 countries, offering a diverse, performance-driven culture and an innovative and engaging environment. As an Ericsson employee, you will have freedom to think big and the support to turn ideas into achievements. Continuous learning and growth opportunities allow you to acquire the knowledge and skills necessary to progress and reach your career goals. We invite you to join our team.

Description
- Responsible for the platform software development, unit-test and bug-fixes for next-generation router platforms.
- Responsible for functional integration testing and automation activities.
- Collaborate with peer platform software team to enhance the common software across platforms.

Requirements
- Strong C/C++ programming skills
- Knowledge of Operating System Principles and Computer Networking fundamentals
- Good understanding of Linux development environment
- BS or MS in Computer Science/Engineering
New College Grad Software Developer  
Location: Vienna, VA

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**Team Description:**
This team is chartered with delivering common routing stacks deployed in multiple products across Ericsson’s product lines. This will allow for uniform network management, full interoperability between Ericsson products. This will eliminate redundancies and inefficiencies, and add savings from non-duplication of features across different stacks.

This is a rare opportunity to be a part of a small team that offers high visibility, complex technical challenges, and a fun working environment...within a company that holds a strong leadership position in networking infrastructure.

**Job Description:**
The primary responsibility of this position is full life-cycle development of routing & bridging stacks that play a pivotal role in all of Ericsson’s networking solutions. These stacks will support Packet Core, IMS, Radio/RAN, IP, MPLS, Optical, Metro, Edge Routing, L2/L3 Switching, etc.

You’ll have ample opportunity to get hands on experience on many L2/L3/Multicast/MPLS related protocols.

**The Ideal Candidate:**
- Familiarity with Bridging fundamentals and L2 table management involving MAC,VLAN,LAG is a plus
- Familiarity with MPLS, MPLS protocols such as LDP/RSVP-TE and MPLS VPNs.
- Familiarity with routing protocols such as OSPF/ISIS/BGP & multicast protocols
- Proficient in C
- Multi-threaded programming
- Some understanding of routing infrastructure, Layer 2/layer 3 forwarding plane, system infrastructure such as memory, IPC, multi-line card environment.
- Excellent design skills
- A team player and fast learner
- Master’s degree preferred.

**Minimum Qualifications:**
- Very solid skills with C
- Basic understanding of interaction between management, data, and control planes.
- Understanding of developing Multi-threaded applications in a high availability Linux environment
- BS Degree in Engineering, Computer Science, or related field
New College Grad Software Tester  
Location: Vienna, VA

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**Responsibilities:**
- Planning, developing and executing manual and automated system test plans, including system, robustness, stability, scalability, reliability, stress, performance and longevity measures. Work with internal customer teams to capture deployment scenario’s and network topologies.
- Participate in defect analysis, defect slip and root cause evaluation, study the customer / product functionality impact, suggest work around methods for the observed defect.

**Characteristics of the Ideal Candidate:**
- Knowledge of L2/L3 protocols – Networking classwork or projects
- Familiarity with IP and TCP/UDP/ICMP protocols
- Experience in using packet sniffing tools like Ethereal and Wireshark
- Familiarity with scripting languages
- Some knowledge of QA testing methodologies and experience in performing various testing activities like Sanity, Functional, System, Regression, Acceptance, Stress, Performance and Scalability

**Qualifications:**
- BS/ MS Degree in Engineering, Computer Science, or related field
Job Title: Systems Software Architect & Developer - IP Systems Prototypes
Job ID: 100042-New College Grad
Organization: BNET DUIB IP Syst System & Technology
San Jose, CA

By 2020, there will be 50 billion connections to the internet, whereby anything that can benefit from an internet connection will be connected (i.e. Networked Society). Over the last 3+ years Ericsson has invested billions of dollars to move from the #1 position in Wireless Infrastructure to take claim as the #1 in end-to-end Converged Infrastructure. There are not many players that have end-to-end capability. There are a whole host of challenges you face when creating a single, fully converged, infrastructure that handles everything.

Headquartered in San Jose, the IP Systems & Technology team establishes and maintains architectural integrity of Ericsson IP Edge Routing Portfolio. Additionally, this team drives architectural decisions in alignment with Ericsson’s end-to-end network architecture and evolution.

Job Overview (includes, but not limited to):

- Defining the requirements and strategy for the prototypes
- Do implementation to help port new applications
- Implement parts of key features for Next Generation Platform (SSR)
- Develop software to work with new stacks and components with vendors
- Developing implementation plans in collaboration with hardware and software teams
- Interfacing with suppliers and HW and software teams to define the scope of prototyping activities
- Securing components (HW and SW) needed for the prototyping.
- Troubleshooting HW and software issues in a lab environment
- Coordinating and collaborating with other Ericsson sites to execute prototypes
- Algorithm design and development
- Developing new architectures

IDEAL CANDIDATE PROFILE (INCLUDING EXPERIENCE & EDUCATION REQUIREMENTS)

- Masters or PhD in Computer Engineering (networking background preferred)
- 0-3 years of experience.
- Strong C Programming with interest in IP technologies
- Good OS (Linux), multi-processing, multi-threading, and TCP/IP networking
• Good understanding of networking technologies like MPLS, routing protocols, forwarding, etc preferred / Linux drivers, LKM development a plus
• Excellent communication, leadership and teamwork skills
• Ability to work independently on complex tasks
• Self-driven with ability to work under strict timelines
• Innovation and filed/approved patents are a plus
• Hands on experience in a lab environment is a plus

We are proud to be an EEO/AA employer M/F/D/V. We maintain a drug-free workplace and perform pre-employment substance abuse testing.
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Job Overview (includes, but not limited to):

- Focus on next generation hardware for the Smart Services Router (SSR)
- Interact with product management and also engineering disciplines
- Provide hardware system and card level requirements for new hardware projects
- Must have solid understanding of system & card architecture design
- Provide feasibility analysis sufficient to verify system level and card level requirements
- Feasibility may involve such disciplines and tasks as follows:
  - Card/System level prototyping
  - FPGA prototyping (fitting, power etc.)
  - Placement analysis
  - Thermal analysis
  - Signal integrity & timing analysis
  - Power analysis
- Interacting with vendors
- Familiarity of one or more of these areas is desired as is ability to interact with other groups or subcontractors to achieve design objectives

IDEAL CANDIDATE PROFILE (INCLUDING EXPERIENCE & EDUCATION REQUIREMENTS)
- 0 to 3 years of networking HW & systems experience; Central Office Networking Systems
- Must have delivered at least one rack based telecom grade networking product from concept to production.
- Must have excellent communications skills with ability to work with a variety of disciplines
- Excellent written and oral skills
- Ability to work independently on complex tasks; self-driven with ability to work under strict timelines

**Must show expertise in one or more of the following areas:**

**Systems**
- Knowledge of central office building practices of major telecoms with regards power distribution, cooling and installation.
- Must exhibit knowledge of applicable standards for central office equipment.
- Working knowledge of power supply design for extremely high power systems.
- Familiarity with backplane design, both cabled and PCB.
- Switch fabric design including multi chassis configurations.

**Interface**
- High speed serdes and electrical signal integrity issues up to 25G and above.
- High speed optical interconnect including standards and requirements.
- Advanced PCB technology and materials.
- Ethernet and OTN.
- Standard and Coherent optics.

**Board**
- Network processor design including working knowledge of ASIC technology and ASIC design flow.
- Server processor and knowledge of x86 systems
- Common bus architectures (PCIe, Interlaken).
- Latest memory technology including interface standards.
- Latest FPGA devices and knowledge of FPGA design flow including familiarity with Verilog.
- Latest manufacturing techniques.

**Networking**
- Ethernet switching
- QoS
• Traffic Management
• Routing

We are proud to be an EEO/AA employer M/F/D/V. We maintain a drug-free workplace and perform pre-employment substance abuse testing.
Impulse Point offers a highly competitive compensation package and the professional advantage of an environment that recognizes your contributions and supports continued personal development.


Impulse Point is an Equal Opportunity Employer.