Dear CSE Students:

Welcome to the sixth newsletter of 2018.

**Message from the UG Advisor:** Graduation checklists for Summer and Fall graduates were due on Friday, March 23rd. If you plan to graduate during either of these terms and have not submitted your checklist, it is important that you contact the department ASAP. **IMPORTANT:** If you are planning to complete an internship this summer for academic credit, there are steps you need to take before summer registration closes. Contact me if you have questions or visit the CSE department office in ENB 324A. Students with registration issues should contact me if you have not done so already. Finally, a note about my summer office hours. During summer, I will be available for scheduled appointments and walk-in advising hours. However, due to summer orientations, I may be unavailable during regularly scheduled walk-in advising times. If you plan to visit me during walk-in advising hours, I encourage to contact me or the CSE office regarding my availability before you travel to campus.

**Message from the Grad Program Assistant:** If you are graduating Spring 2018 and have not submitted your graduation checklist, please do so before the last day of classes for the semester. Summer and Fall registration has opened. Make sure you submit all Directed Research/Thesis/Independent Study contracts in a timely manner.

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

- End the Semester right with WICSE in April
- Data Science Boot Camp 2018
- Open Undergraduate Research Positions for Dr. Licato’s AMHR Lab
- Research Assistant (OPS) Needed
- US Cyber Challenge: Cyber Quests Spring 2018
- GlaxoSmithKline (GSK) Project
- Data Engineering Intern at Bristol-Myers Squibb
- UTC Summer Internship
- Healthcare IQ Student Software Intern
- State of Florida Systems Programmer I
- Full-Stack Developer
- PHP Developer at Deliver Logic

Regards,

Ken Christensen
Professor and Associate Chair of UG Affairs
End the Semester right with WICSE in April

4/2  WICSE Elections and Peer Mentorship Social in ENB 313 at 6:30 PM
4/9  Learning unit testing in C# with Accusoft in ENB 313 at 6:30 PM
4/10 WICSE and ACM with Johnson and Johnson in ENB 109 at 6:30 PM
4/13 CAE Luncheon at the Top of the Palms at noon
4/16 FairWarning: a Day in the Job with SQL in ENB 313 at 6:30 PM
4/23 WICSE Banquet in ENB 313 at 6:30 PM
INFORMS STUDENT CHAPTER @ USF

DATA SCIENCE BOOT CAMP 2018

2-Day Workshop on Data Science with R and Python

Topics: Programming fundamentals, Pre-processing, Visualization, Linear models, Tree/ensemble models, Text analytics, Neural Networks

Day1 - Data science with Python
April 13 Fri: 1.30-4.30pm - Room ENG4
Registration link:
https://goo.gl/forms/hu6sedD9WMYayI9g2

Day2 - Data science with R
April 14 Sat: 10am-3pm - Room ENG4
Registration link:
https://goo.gl/forms/DsvhdpWzahr1GLvq2

Registration deadline: April 10 Tue
35 seats available for each day
First-come, first-served; wait-list available
Registration fee and Lunch = FREE
PLEASE BRING LAPTOPS!
Questions: nsakib@mail.usf.edu

The Institute for Operations Research and the Management Sciences Students Chapter at USF
Department of Industrial and Management Systems Engineering, USF
Open Undergraduate Research Positions for Dr. Licato’s AMHR Lab

Dr. Licato's AMHR lab has research positions open for undergraduate CSE students (paid or for course credit), for Summer or Fall 2018.

**Description:** Researchers will be working with Dr. Licato and graduate students to analyze data and write supporting code. Several projects will need support, including using AI to analyze arguments, building automated reasoning support tools, and learning commonsense reasoning by crawling the web.

**Requirements:** The ideal candidate has some interest and experience (coursework or your own research) in at least one of the following:

- Artificial Intelligence
- Computational Linguistics / NLP
- Logical Reasoning or Automated Theorem Proving
- Programming in Python, Lisp, or any proof assistants (HOL4, Isabelle, Coq, etc.)

If you are interested, send a résumé to Dr. Licato at licato@usf.edu as soon as possible. Applicants will be considered until all positions are filled.
Research Assistant (OPS) Needed

The Child Language Intervention Laboratory is seeking one part-time research assistant to become part of a dynamic research team. Our research projects are focused on development and evaluation of early language and literacy interventions for preschool teachers and their students. We are currently inviting applicants for these positions who have experience and research interest in Education, Early Literacy, and Instructional Technology and Design.

Job Responsibilities may include:

- Assisting a post doc with development of a machine learning application in Python.

Minimum Requirements:

- Preferred: A Master’s or PhD level student with knowledge and experience in one or more of the following:
  - Fluency with Python
  - Interest in Machine learning.
- Required: A bachelor’s degree in computer science.

Additional Information:

- Reliable transportation is necessary for this position as some of the work may be conducted in schools across the greater Tampa area.
- This position is project-based and the number of hours worked per week will vary depending upon project needs. The initial assignment will range from 15-20 hours per week.
- Certification of training for the protection of human research subjects will be required before duties can begin. CITI training is offered through USF and will be completed online upon employment.

For more information about the position and to apply, please contact Dr. Keri Madsen at kmadsen@usf.edu.
Research Assistants (OPS) Needed

The Child Language Intervention Laboratory is seeking **up to two part-time research assistants** to become part of a dynamic research team. Our research projects are focused on development and evaluation of early language and literacy interventions for preschool teachers and their students. We are currently inviting applicants for these positions who have experience and research interest in Education, Early Literacy, and Instructional Technology and Design.

**Job Responsibilities may include:**

- Assisting senior researchers with design and development of an early literacy curriculum.
- Assisting in the design and development of online training modules for teachers.
- Participating in data collection at various schools in the greater Tampa area:
  - Administering a variety of language and literacy measures to preschool children.
  - Accurately recording responses and scoring assessments.
  - Collecting interview and/or observational data from teachers.
  - Accurately coding and entering data into a database.
- Providing coaching to preschool teachers.
- Educational data management and expert decision-making app development.
- Maintaining confidentiality of data in compliance with the research protocol.
- Complying with the regulations, policies, and procedures of the University and the schools in which we work.
- Completing additional tasks as needed and assigned.

**Minimum Requirements:**

- Preferred: A Master’s or PhD level student with knowledge and experience in one or more of the following:
  - Adobe InDesign software.
  - Articulate 360 instructional design software.
  - HTML5 web design
- Required: A bachelor’s degree in related field (i.e., Education, Curriculum and Instruction, Literacy, Instructional Technology, Graphic Design) with 1 or more years of experience teaching, designing lessons, and delivering professional development to teachers.

**Additional Information:**

- Reliable transportation is necessary for this position as some of the work may be conducted in schools across the greater Tampa area.
- This position is project-based and the number of hours worked per week will vary depending upon project needs. The initial assignment will range from 15-20 hours per week.
- Certification of training for the protection of human research subjects will be required before duties can begin. CITI training is offered through USF and will be completed online upon employment.

For more information about the position and to apply, please contact Dr. Keri Madsen at kmadsen@usf.edu.
US Cyber Challenge: Cyber Quests Spring 2018

Welcome to the Cyber Quests portion of the US Cyber Challenge! To participate, please click the Registration link on the left and register for an account within the Question Engine. It is time for the annual Cyber Quests competition (www.cyberquests.org).

Cyber Quests are a series of fun but challenging on-line competitions allowing participants to demonstrate their knowledge in a variety of information security realms. Each quest features an artifact for analysis, along with a series of quiz questions. Some quests focus on a potentially vulnerable sample web server as the artifact, challenging participants to identify its flaws using vulnerability analysis skills. Other quests are focused around forensic analysis, packet capture analysis, and more. The quests have varying levels of difficulty and complexity, with some quests geared toward beginners, while others include more intermediate and ultimately advanced material.

Top scorers in the competition are invited to one of four week-long intensive Cyber Security training camp’s hosted by the US Cyber Challenge (www.uscyberchallenge.org). This competition is open to participants of all ages and skill levels, and is designed to get America’s best and brightest interested in a career in Cyber Security. It is a great opportunity to help kick-start a career in Cyber Security.

Cryptography (Spring 2018):

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tue. Mar. 27, 2018 7:00am EDT</td>
<td>Registration opens</td>
</tr>
<tr>
<td>Tue. Apr. 10, 2018 7:00am EDT</td>
<td>Quiz opens</td>
</tr>
<tr>
<td>Mon. Apr. 30, 2018 11:59pm EDT</td>
<td>Registration closes</td>
</tr>
<tr>
<td>Tue. May 1, 2018 11:59pm EDT</td>
<td>Quiz closes</td>
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Registration will open on March 27, 2018, and will close on April 30, 2018. The quiz will be available from April 10, 2018 until May 1, 2018. Registered users will each have three attempts to take the quiz. For each of your three attempts, you will have 24 hours from the time you begin the quiz to complete it, and you may only submit your answers once per attempt. For each attempt, you must submit the answers within 24 hours of when you start, or by 11:59pm EDT on May 1, 2018 (whichever comes first). If you still have the quiz open in your browser at closing time, or if you leave the quiz and don't come back to submit, it will automatically submit whatever answers you have entered so far. If you stay on the same page for more than four hours, your session may time out. Your answers on each page will be automatically saved every five minutes, and when you click the Next button at the bottom of each page. You may leave and come back, but you must come back to finish before time expires or the quiz closes!

Registration will open on March 27, 2018.
GlaxoSmithKline (GSK) Project

We at MindSumo just partnered with GlaxoSmithKline! This exciting GSK challenge just launched and will be open for students to solve for 30 days.

MindSumo is a platform that provides real company projects for students to help them develop professional skills and valuable experiences for resumes. We have worked with over 350 companies in the past and have over 300,000 students in our community.

The GSK challenge asks students to think of an out of the box solution to monitor sleep and wakefulness. They’ve specifically mentioned their interest in hearing from CS, Information systems and engineering students.

**GSK - Can you build a sleep tracking solution that will help patients?**

Before solving, we recommend students to do a little reading and get a basic understanding of relational databases (open source, proprietary), Hadoop, Hive, Spark and also of Google cloud, Azure and similar cloud tech.

Feel free to reach out to us if you have any questions or would like any clarification. Contact Isha Punjabi at isha@mindsumo.com with any questions regarding this project.
2018 Position Description

NAME OF POSITION: Data Engineering Intern (May 14th, 2018 to August 17th, 2017)

Data Engineering Overview:
Data Engineering is a function of the Information and Data Management group that serves Bristol-Myers Squibb’s enterprise by enabling analytics and insights. We provide best-in-class architecture and software development capabilities to build an enterprise data lake which is used for data storage and data analytics throughout the company. Our mission is to deliver a superior solution by effectively leveraging key technologies to improve productivity and to gain a competitive advantage.

The candidate chosen for this position will become a valued team member of this organization which is responsible for developing Data Integration & Enterprise Integration Solutions as a strategy for the Information and Data Management group within Bristol-Myers Squibb.

Summer Internship: Data Engineering Intern (1) - Tampa, FL

Data Engineering Ideation initiatives. Candidate will assist in developing software solutions in the Data Engineering team to support key strategic initiatives within our team. Initiatives are focused on delivering solutions for creating an enterprise data lake used for decision making and analytics across the enterprise as well as delivering solutions for enterprise integration and middleware capabilities.

Key Learning’s:
- Software Development Life Cycle (SDLC)
- Software Design & Development
- Cloud Computing (AWS)
- Enterprise Application Integration (EAI)
- Data Science & Data Analytics

Requirements/Education:
Enrolled in Bachelor’s or Master’s degree program in Computer Science or related technical degree with minimum GPA 3.0 desired.

Backgrounds/degrees include:
- Computer Science
- Information Systems

Must possess a 3.0+ GPA and be eligible to work part-time, 40 hours, Summer 2018.

Must have strong analytical, problem-solving, interpersonal, communication, organization, and time management skills. Must have completed an advanced programming class (i.e. Java, JavaScript/NodeJS). Must have a strong desire to learn and be challenged technically. Able to work and collaborate in a fast-paced team environment and work independently. Must have the ability to collect & analyze information, and solve problems by leveraging technology including Java, JavaScript/NodeJS, & RDBMS/SQL, Cloud Computing(AWS), Python, Scala, Spark.
UTC Summer Internship

The successful candidate will work within a global team advancing technology by developing, debugging, designing, & unit testing embedded firmware products. In this role you will work alongside other world class engineers, focusing on the development and support of our embedded products for UTC Building & Industrial Systems fire alarm product development group.

Responsibilities
• Work closely with embedded firmware designers and assist in the development of software/firmware based diagnostics tools and products for a life safety system.
• Use multitasking, high level languages, and integrated development environments on proprietary life safety system platforms.
• Assist in the testing and debugging of embedded firmware designs.
• Complete documentation for concepts, detailed designs, and test methods.
• Work with hardware, software, and test team members.
• Evaluate new technologies.
• Complete tasks on time.

Qualification
• Technical background skills.
• Good open and candid communications (verbal and written) skills.
• Bring a positive, can-do attitude to the workplace every day.
• Self-motivated, detail oriented.
• Must be willing to take a drug test as part of the selection process.
• Must be willing to submit to a background investigation as part of the selection process.
• Must have unrestricted authorization to work in the United States.

Targeted Programs
• Engineering Systems & Computing
• Computer Engineering
• Software Engineering
• Electrical Engineering

Education:
• 2nd or later year student in a BA/BS in a Computer Engineering, Electrical Engineering, or in Computer Science degree program.
• Knowledgeable of embedded systems and firmware/software.
• Course work or programming experience with C/C++.

United Technologies Corporation is An Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability or veteran status, age or any other federally protected class.

Submit Resume to: bill.downing@fs.utc.com
# JOB DESCRIPTION

## JOB TITLE:
Student Software Intern

## DEPARTMENT:
Research & Development

## REPORTS TO:
Ximena Avila

## DATE:
02-01-2018

### SUPERVISORY RESPONSIBILITIES:
None

### TRAVEL:
0%

### SUMMARY:
The student software intern will contribute to the production of high quality code as well as the software quality control process. The candidate will take personal responsibility in taking a given task and transforming it into working, maintainable code that delights our customers. The candidate will support the software quality control process via documentation and system tests. The candidate will relentlessly and effectively test their code, refactor, use version control and practice continuous integration.

### ESSENTIAL DUTIES AND RESPONSIBILITIES:
- Design, develop and test software programming applications according to functional specifications.
- Build, test, deploy and maintain production code for web-based applications using Java, JavaScript, XML, SQL, Python and other frameworks, programming and scripting languages.
- Update and maintain software and support documentation as needed.
- Participate in peer code reviews and follow coding standards defined by the software engineering team.
- Provide testing support for applications developed in the R&D department.

### EDUCATION AND/OR EXPERIENCE:
- 1+ years’ experience in developing applications in Python, Java, JavaScript either as research projects or real world applications.
- Familiarity with object oriented design and design patterns.
- Familiarity with Java programming and debugging.
- Familiarity with Python language programming and debugging is a plus.
- Strong analytical and problem solving skills.
- Some experience working with UNIX or Linux.

### QUALIFICATIONS AND/OR OTHER REQUIREMENTS:
- Willing to learn and master test driven development and Junit.
- Willing to learn and master web technologies, such as JavaScript, HTML, CSS.
- Willing to learn to use tools for Robotic Process Automation.
- Familiarity with Version control (SVN, Mercurial, GIT).
- Familiarity with dependency management system (e.g., Maven).
BUSINESS RELATED CONTACTS

COMPETENCIES (HR Department Fills in this section)

- Intellectual
- Interpersonal
- Leadership
- Organization
- Self-Management
- Language Skills
- Mathematical Skills
- Reasoning Ability
- Computer Skills

- **Physical Demands** - The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee is regularly required to sit; use hands to finger, handle, or feel; reach with hands and arms and talk or hear. The employee is occasionally required to stand and walk. The employee must occasionally lift and/or move up to 10 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and ability to adjust focus.

- **Work Environment** - The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. The noise level in the work environment is usually moderate.
To be considered as a potential candidate, you must meet the minimum requirement(s) listed below. Degrees must be from an accredited college or university as recognized by the U.S. Department of Education.

**Minimum Qualifications: (1)** A bachelor's degree from an accredited college or university and three years of experience in computer systems analysis and/or computer programming; or **(2)** A bachelor's degree from an accredited college or university with a major in one of the computer sciences or management information systems and two years of experience as described above; or **(3)** A master's degree from an accredited college or university in one of the computer sciences or management information systems and one year of experience as described above; or **(4)** A doctorate from an accredited college or university in one of the computer sciences or management information systems; or **(5)** Four years of experience as described above and either (a) completion of a 720 classroom hour program of study from a vocational/technical school or accredited community college in an area of data processing (excluding computer operations and data entry), or (b) 60 semester or 90 quarter hours of college course work from an accredited institution which includes four courses in computer science or management information systems. **(6)** Experience in computer systems analysis and/or programming can substitute on a year-for-year basis for the required college education. **(7)** Completion of a one-year program of study from a
vocational/technical school in an area of data processing (excluding data entry) can substitute for one year of the required experience.

**Duties and Responsibilities:** Responsible for providing support and maintenance of personal computer systems, server systems including related applications and peripherals. Responsible for designing, implementing, maintaining, and centrally managing enterprise desktop solutions in a local and wide area network environment. Responsible for installation and configuration of the department’s desktop and laptop systems. Performs backups and restores of critical data. Uses network protection tools to ensure the security of sensitive data.


**NOTES:** Applicants being considered for employment must pass a drug screen and background investigation which will include a financial credit check. Responses to qualifying questions will be credited only if verifiable by skills and/or experience listed on the employment application, including specifically required software/computer skills. The elements of the selection process may include a skills test and/or interview. Applicants may be notified by email to participate in a selection process. Failure to reply within a designated time frame may exclude the applicant from further consideration. Future vacancies may be filled from this position advertisement. Starting salary will be the minimum of the class pay range, unless otherwise dictated by FDLE’s pay policy. Preference will be given to current FDLE members who have satisfactorily completed their probationary period or served at least one year in their current position. Preference may be given to applicants in the State Personnel System who have satisfactorily completed their probationary period or served at least one year in their current position.
REMINDERS:

(1) Male applicants born on or after October 1, 1962, will not be eligible for hire or promotion unless they are registered with the Selective Services System (SSS) before their 26th birthday, or have a Letter of Registration Exemption from the SSS. For more information, please visit the SSS website: http://www.sss.gov.

(2) If you are a retiree of the Florida Retirement System (FRS), please check with the FRS on how your current benefits will be affected if you are re-employed with the State of Florida. Your current retirement benefits may be cancelled, suspended, or deemed ineligible depending upon the date of your retirement.

The State of Florida hires only U.S. citizens and lawfully authorized alien workers.

The State of Florida is an Equal Opportunity Employer/Affirmative Action Employer, and does not tolerate discrimination or violence in the workplace.

Candidates requiring a reasonable accommodation, as defined by the Americans with Disabilities Act, must notify the agency hiring authority and/or People First Service Center (1-866-663-4735). Notification to the hiring authority must be made in advance to allow sufficient time to provide the accommodation.

The State of Florida supports a Drug-Free workplace. All employees are subject to reasonable suspicion drug testing in accordance with Section 112.0455, F.S., Drug-Free Workplace Act.

VETERANS’ PREFERENCE. Pursuant to Chapter 295, Florida Statutes, candidates eligible for Veterans’ Preference will receive preference in employment for Career Service vacancies and are encouraged to apply. Candidates claiming Veterans’ Preference must attach supporting documentation with each submission that includes character of service (for example, DD Form 214 Member Copy #4) along with any other documentation as required by Rule 55A-7, Florida Administrative Code. Veterans’ Preference documentation requirements are available by clicking here. All documentation is due by the close of the vacancy announcement.

APPLY HERE: HTTPS://CAREER4.SUCCESSFACTORS.COM/CAREERS
Job Description
Full-Stack Developer
Location: Tampa, FL
Status: 10-20 Hours a Week
Compensation: Paid
Start Date: 06/10/2018 – 08/01/2018 (Start Date Based on Availability)

Company Description:

Verum Properties is a real estate tech start-up looking to expand its influence and brand recognition in the net lease real estate market. Verum’s users are able to value their properties almost instantaneously, in a manner similar to Zillow, Trulia, RedFin and House Canary. Where these company’s users are looking to purchase or sell houses, Verum’s users are commercial real estate professionals looking to sell assets like Walgreen’s, Starbucks, and 7-Eleven properties. Verum operates with the mission to empower members of the $3.0 T commercial net lease real estate market in their every day jobs. The founders of Verum have worked to create a culture where rewarding innovation, productivity, and positivity are our priority.

Internship Description:

We are looking for a full-stack developer to help procure the necessary data to develop our proprietary valuation algorithm. The ideal candidate should be proficient in both back end and front-end development and be specifically proficient in: SQL, Python, R, JavaScript, PHP, and JSON. As a developer at Verum properties you will maintain our database, develop machine learning algorithms, and work on the development of our user applications.

RESPONSIBILITIES:

- Manage the company’s current dataset while developing ways to position the company for the future via database integration into our website.
- Utilize Real Estate Data platforms like ESRI and CoStar to populate and expand the current database. (Training on both platforms will be provided at the beginning of the internship, but student should have a basic understanding of their uses prior to beginning the internship)
- Listen and engage in relevant discussions about our company, competitors, and/or industry, both from existing customers and from new audiences
- Work directly with both Co-Founders to develop databases and valuation models and determine future paths for the company
- Explore new ways to engage the industry
- Identify, analyze, and interpret trends or patterns in complex data sets
- Develop, prototype and test predictive algorithms through neural networks, regression modeling, and decision trees
Develop and implement data collection systems and other strategies that optimize statistical efficiency and data quality
Interpret data, analyze results using statistical techniques and provide ongoing reports

QUALIFICATIONS:

- Must be extremely detail oriented with strong attention to follow-through
- Interest in real estate and ability to learn some of the technical aspects of Verum and net lease properties
- Communicate effectively in both written and verbal form
- Flexible in work functions and duties
- Ability to manage multiple tasks and meet deadlines
- Exceptional time management skills
- Minimum 3.5 GPA

SKILLS:

- SQL
- Python
- R
- JavaScript
- PHP
- JSON
- Microsoft Office Suite
- Microsoft Server 2016
- Good writing and communication skills
Open Position: PHP Developer
Competitive Pay, High-Growth Company

Summary
The ideal candidate is a highly resourceful and innovative developer with extensive experience in the layout, design and coding of websites specifically in PHP format. You must also possess a strong knowledge of web application development using PHP programming language and MySQL Server databases.

Responsibilities & Requirements
- Perform a mix of maintenance, enhancements, and new development as required
- Work in a data analyst role and with business intelligence applications
- Document features, technical specifications & infrastructure
- Work cross-functionally to convert business needs into technical specifications
  Qualifications experience in web development and software design
- Expertise in front-end technologies (HTML, JavaScript, CSS), PHP frameworks, and MySQL databases

To Apply:
Email your resume to info@deliverlogic.com and include the position title in your subject line.

About DeliverLogic
DeliverLogic is a fast-paced, high-growth technology company providing software as a service for independent food delivery providers globally. We are headquartered in Tampa, FL (USA), and have a very diverse and talented internal team of software engineers, business development specialists, marketers, designers, sales individuals, and more.