LAURA SOUTH

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www.github.com/lsouth

SKILLS

Languages
Java, Python, R, C++, JavaScript, C, HTML, CSS

Operating Systems
Windows, Linux, Mac

Recent Courses
- Software Engineering
- Object Oriented Design
- Stochastic Processes
- Algorithms
- Systems Security

Tools/Methodologies
Scrum, Git/Github, TravisCI, JUnit, Eclipse, Test Driven Development, D3

RELEVANT PROJECTS

- **Trip planning application**: Used Scrum workflow and full stack development to create GUI, add database querying, and implement 3-opt algorithm (Java)
- **Raytracer**: renders scenes with illumination, reflection, and refraction, built from scratch (Java)
- **Honors thesis**: runs in the background of browsing sessions to detect/block seizure-inducing web media (Python/OpenCV)
- Implemented memory efficient **dynamic programming** solution to Knapsack problem (Python)
- Created **image classifier** perceptron in C++ to sort images of hand gestures

EDUCATION

Colorado State University, Fort Collins [**GPA: 3.95**]
- B.S. in Computer Science, B.S. in Statistics (double degree)
- Minors in economics and mathematics, 3 years of Russian language

WORK EXPERIENCE

NSF REU Scholar, Rutgers University [May – July '17]
- Conducted original research on shoulder surfing attack vulnerabilities in mobile authentication systems with mentor Dr. Janne Lindqvist
- Presented research multiple times to audience of faculty, peers, and community members

Intern, Hewlett Packard Enterprise [May '16 – May '17, Sept '17 – present]
- Created and maintained business value calculator that is used worldwide by 100+ sales representatives to generate predictive cost analysis for potential customers
- Nominated by direct manager for company-wide Innovation & Excellence award (May '17)
- Helped primarily non-technical team adapt to software engineering tools, including GitHub, unit testing, and continuous integration

Teaching Assistant, CSU Department of Computer Science [August – Dec '17]
- Introduced students to programming in C, assembly, and basic hardware concepts through weekly recitations and office hours

EXTRACURRICULAR INVOLVEMENT

Chair, Association for Computing Machinery – Women [Jan '16 – present]
- Worked to improve gender diversity in CS department by organizing monthly professional development and community building events for women in tech, including internship panels, presentations from female engineers at leading companies, and group-coding nights
- Led prospective student outreach initiative that lead to a 20% increase in female incoming freshman in Computer Science program

Event Coordinator, Undergraduate Women in Economics [Sept '15 – May '17]
- Founding member of club devoted to improving female participation and retention in the CSU Economics department
- Worked directly with multiple professors and students to develop and implement new strategies to encourage female students in introductory Economics courses

Member, University Honors Program [Aug '14 – present]
- Worked one-on-one with professors to complete side projects in Systems Security, Econometrics, and Algorithms
- Thesis completed December 2017 ("*Detecting Photosensitive Risk Factors in Online Media*")

AWARDS & HONORS

- Student Speaker, College of Natural Sciences Scholarship Reception (selected by Dean to represent all students receiving awards)
- Thomas J. Heidenfelder Award (full financial support awarded to one Computer Science student who shows academic merit and dedication to the field)
- CSU Department of Computer Science Grace Hopper Scholarship (full support to attend the 2016 Grace Hopper Conference in Houston, TX)
- College of Natural Sciences Dean's List
- Green & Gold Scholarship Recipient
- Truman Scholarship campus nominee