# YU LIU

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## SUMMARY

- Young and passionate master student with 4 years of research experience in various fields.
- Proficiency in programming, analytical and quantitative problem solving.
- Quick and independent learner of new skills. Adaptable in fast-paced working environment.

## HIGHLIGHTED SKILLS

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|---|---|
| **Programming** | C, C++, Java, Python, JavaScript |
| **Data Analysis** | R, Matlab, SQL, Hadoop |
| **Spatial Analysis** | ArcGIS, Google Maps API, ENVI |
| **Languages** | English, Chinese |

## EDUCATION

**University of California, Davis** — Expected June 2014
Master of Science, **Computer Science** — CS GPA: 3.8/4
Master of Science, **Civil Engineering** — Overall GPA: 3.6/4

**Peking University** — July 2012
Bachelor of Science, **Geographical Information System** — Overall GPA: 3.6/4
Bachelor of Arts, **Economics**

## EXPERIENCE

**NextSTEPS program** — September 2012 - Present
Graduate Student Researcher — Institute of Transportation, UC Davis

- Rich experience for big data analysis with Postgresql and Hadoop. Interactive visualization with Javascript (d3.js) and HTML design. Work in a cross-discipline team.
- Currently responsible for modeling on power infrastructure transition evaluation with Matlab and R. Frequent communications with advisors and industry peers.

**Geosoft Lab** — December 2009 - July 2012
Research Assistant — Institute of RS & GIS, Peking University

- Conducted research on Human mobility analysis. Responsible for spatial-temporal accessibility assessment with Python and ArcGIS.
- Developed a probablistic model for taxi distribution in Java and Matlab.

## PROJECTS

**Social Computing on GitHub**

- Apply MySQL and Ruby to extract the relationship between pull requests, commits and issue discussions. Corporate machine learning to discover potential patterns in this "coding" social network.
- Visualization in d3.js and Cytoscape to show the interactions between users and projects.

**IEEE 802.11p Evaluation in IVC**

- Use OMNeT++ to simulate the inter-vehicle communications and SUMO as a traffic flow generator.
- Under Veins framework, evaluate parameters such as communication density and beacon packets delays in different traffic load scenarios to judge the performance of IEEE 802.11p.