

Robert Gove

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Experience

Distinguished Data Visualization Scientist - Two Six Technologies: Dec 2013 - Present

- Performed as PI and technical lead on several programs. Set direction for technical R&D efforts, managed project schedule, performed customer briefings, and created progress reports.
- Performed requirements gathering with end users to determine user interface specifications.
- Designed scalable visualization techniques for analyzing large graph datasets, comparing malware features, identifying changes in security policies, and explaining machine learning algorithms.
- Combined machine learning and statistical algorithms with visualization to provide force multiplier tools for analysts.
- Designed and evaluated novel visualization algorithms that dramatically improved runtime performance over current state-of-the-art algorithms.
- Implemented visual analytic tools in HTML/CSS, D3, Svelte, AngularJS, Python, MongoDB, and Docker.
- Designed and conducted evaluations to evaluate efficacy of user interfaces and visualizations.
- Published papers and presentations at conferences such as EuroVis, VizSec, and Black Hat.

Analytic Tool Developer - Booz Allen Hamilton: June 2011 - Dec 2013

- Designed and implemented novel data visualizations of uncertain project schedules using Flex. Wrote research report and presented results at IEEE VIS.
- Led teams of developers to design, prototype, implement, test, and deploy tools to government clients to analyze communication networks, aircrew readiness, and emergency planning.
- Performed requirements gathering with internal and external clients. Worked with clients to iteratively design user interfaces and visualizations to meet client data analysis needs. Implemented solutions using D3, jQuery, JavaScript, and Flex.
- Received five awards for producing exceptional project deliverables and presentations.

Education

University of Maryland, College Park: May 2011

M.S. in Computer Science, Information Visualization concentration

Thesis: Usability evaluation of Action Science Explorer. Advisor: Dr. Ben Shneiderman.

University of North Carolina at Greensboro: May 2009

B.S. in Computer Science and Applied Math (double major); Spanish Minor

Disciplinary honors thesis: "Evolutionary Computation: Optimizing Resource Allocation in A. lyrata"

Skills

Software: Git, Rollup, Docker, Sketch

Languages: HTML, CSS, JavaScript, Python, SQL

Frameworks: D3, Svelte, React, AngularJS, NodeJS, Express, Tornado

Honors and Awards

Best Paper Awards (VizSec 2021, VDA 2020, IV 2019, FMT 2018)

Best Poster Award (VizSec 2020)

Patents

- Dynamic updates to force-approximation models—USPTO #11087048
- Fast, human interpretable graph comparison algorithms—USPTO #US10657686
- Linear-time graph embedding algorithm—USPTO #US10565749

Service

- VizSec: Steering Committee 2019 - present, General Chair 2019, Sponsorship Chair 2017 & 2018, Program Committee 2015 - present
- Conference reviewer: InfoVis (2016, 2019, 2020), VAST (2016, 2017, 2019, 2020), EuroVis (2016, 2018, 2019)