TARIK CRNOVRSANIN (RESUME)

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EDUCATION

University of California, Davis (2019)
PhD Computer Science
Area: Data visualization, Networks
Advisor: Dr. Kwan-Liu Ma
☆ Awarded Best Graduate Researcher

University of California, Davis (2011)
MS Computer Science
Area: Data visualization, movement data
Advisor: Dr. Kwan-Liu Ma

University of California, Davis (2008)
BS in Computer Science

SELECTED EXPERIENCE

Data Visualization @ Khoury, NorthEastern University — PostDoc Jan 2021 - Present
- Interactive Visualization techniques and algorithms for temporary geospatial network data.

VIDI Labs, University of California, Davis — Research Associate (WOS) Aug 2020 - Jan 2021
- Design algorithms for the exploration of WildFire data and manage students on Network Systems and Tools.

Out of Darts (Remote) — 3D Model Designer, Web Developer, Consultant May 2017-Present
- Research and design of new 3D printed products from concept to full production such as the OOD Jupiter. (2+ m views on Youtube, 30% of 3D printed sales)
- Develop visual tools to allow shoppers to easily customize and view their purchases.

Department of Computer Science, University of California, Davis —Lecturer 2019
- Developed lectures, assignments, & taught an 8-week course on Intro to Programming using Python to over 50 students.

VIDI Labs, University of California, Davis — Graduate Student Researcher Oct 2009 - Jun 2019
- Designed visualizations, algorithms, and systems on various topics including graph layouts, radio signal data, dynamic network data, and movement.
- Conducted studies on best practices for animation in online dynamic networks and approaches to reduce eye fatigue.

Nokia Research Lab — Trainee 6 Apr - May 2009
- Created a contextual tourist map on the web using Google maps, JavaScript, Python, and SQL. ☆ US Patented

SELECTED PUBLICATIONS

Staged Animation Strategies for Online Dynamic Networks. T. Crnovrsanin, Shilpika, S. Chandrasegaran, and KL. Ma. IEEE Trans. Visualization and Computer Graphics. In Proc. IEEE VIS 2020.
Dynamic networks, graph visualization, animation, mental map, user study

What Would a Graph Look Like in this Layout? A Machine Learning Approach to Large Graph Visualization. OH. Kwon, **T. Crnovrsanin**, and KL. Ma. IEEE Trans. Visualization Computer Graph, 24(1), 2018.
Machine learning on networks, Graph kernel, Graphlet, Network visualization

An Incremental Layout Method for Visualizing Online Dynamic Graphs. T. Crnovrsanin, J. Chu, and KL Ma. Conf. on Graph Drawing and Network Visualization, 2015. ☆ Best Paper (Top 1)
Dynamic Graphs, Streaming data, Graph Layout

A System for Visual Analysis of Radio Signal Data. T. Crnovrsanin, Muelder C., and KL. Ma. Conf. on Visual Analytics Science and Technology (VAST) 2014.
Coordinated and Multiple Views, Geographic/Geospatial Visualization, Intelligence Analysis, Time-vary Data

Stimulating a Blink: Reduction of Eye Fatigue with Visual Stimulus. T. Crnovrsanin, Y. Wang, and KL. Ma. Conf. on Human Factors in Computing Systems(CHI), 2014.
CVS, Blink Detection, Blink Stimulus, User Study

SKILLS

Coding:(Proficient) C++, Python, Javascript, (Knowledgable) OpenGL. **GPQGPU:** OpenCL. **Web Client:** WebGL, Javascript, Three.js, Shopify. **DMBS:** MYSQL, PostgreSQL, MongoDB**. Image and Video Authoring:** Photoshop, Camtasia, PowerPoint. **Modeling and Design:** Fusion 360, 123Design, Maya.