NUR ADILA FARUK SENAN

DATA SCIENTIST AND VISUALIZATION ENGINEER, APPLE INC.

adilapapaya@gmail.com
(510) 725 9492
adilapapaya.com

Data scientist passionate about producing insightful data analysis and innovative data visualizations, enthusiastic about making friction-free user interfaces, and consistently seeking to improve the efficiency of the teams I work with.

Experience

Apple Product Design

Data Scientist and Visualization Engineer

February 2012 - Current

- Involved in the analysis and visualization of data at various stages of the product development cycle at Apple including design, prototyping, manufacturing, and post-release.
- Collaborated closely with various teams across the company including Industrial Design, Product Design, Manufacturing Design, Advanced Manufacturing Engineering, and Operations.
- Created simulations and visualizations to identify core issues and evaluate design decisions. Some of the affected products include the Apple iMac display, the Apple MacBook haptic trackpad, the Apple MacBook Pro touchbar, and keyboards across all Apple products.
- Built generic visualization tools (primarily web-based or in Processing) that continue to be used throughout the company.
- Architected and developed visualizations for viewing and monitoring manufacturing data in real-time.
- Revamped an exiting product quality monitoring tool to improve usability and speed and permit more in-depth analysis of issues.

Open Source Statistics Library

Papaya

January 2012

- Created and maintained the open-source papaya library — a collection of statistics, mathematics, and matrix manipulation related utilities — for the Processing programming environment.

Apple Industrial Design

Data Analyst Intern

May - Aug 2011

- Analyzed and visualized data specific to an at-the-time unreleased project with the help of various software platforms (primarily Matlab, Processing, Adobe Illustrator).

University of California at Berkeley

Research Assistant

2007-2011

- Helped develop and improve upon a model of the lumbar spine (models viewable at simtk.org/home/lumbarspine and simtk.org/home/spinebushing).
- Wrote algorithms to aid with data acquisition and interpretation of experimental data sets obtained from in-vitro testing of lumbar specimens. Ran extensive error analysis on the resulting data.
- Published articles in peer-reviewed journals on a musculoskeletal model of the lumbar spine , the dynamics of the intervertebral disc, Cartesian stiffness matrices, error analysis of experimentally obtained data sets , quantification of rigid body motion using quaternions , and plant growth dynamics.

Technical

- Data Processing & Analysis : R, Python, Javascript, Processing, Java, Matlab, JMP.
- Data Visualization: Javascript, R, JMP, Processing, Matlab.
- Web Development: Javascript (d3, React), CSS/Sass, Shiny-Server, node.js, postgres.
- Other Misc: Unix shell scripting, Git, Velocity, Full MS Office and iWork suites.

Education

- PhD in Mechanical Engineering, University of California at Berkeley, CA, 2008-2011.
- Masters in Mechanical Engineering, University of California at Berkeley, CA, 2006-2008.
- Bachelor of Engineering in Mechanical Engineering, Vanderbilt University, Nashville, TN, 2002-2006.
- Bachelor of Arts in Mathematics, Vanderbilt University, Nashville, TN, 2002-2006.
- Bachelor of Arts in Physics, Vanderbilt University, Nashville, TN, 2002-2006.

Awards

- Departmental Block Grant Fellowship, Fall 2006, Summer 2009, Spring 2010, Spring 2011.
- Panel Speaker, Teaching Conference for New International Graduate Student Instructors , Fall 2010 & 2011.
- National Science Foundation Research Grant , Spring & Summer 2007, Spring & Summer 2008, Fall 2009, Summer & Fall 2010.
- Outstanding Graduate Student Instructor Award , 2008-2009 Recipient.
- Penang International Biathlon 2006, Women's runner-up.
- Youth Speaks for the Nation Elocution Contest , First Place Winner, 2001.

Interests

- Technical: Better ways of visualizing data, User-friendly documentation, User interfaces.
- Sports: Squash, Standing Desk-ing.
- Other: Human-Device interaction, Psychology, Perception, Design interfaces, Consumer behavior, Grocery shopping, Boiling water, Making ice, Trying to be funny.

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