BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Dragutin Petkovic	Associate Chair, Professor SFSU CS Department Director, SFSU Center for Computing for Life Sciences
eRA COMMONS USER NAME (credential, e.g., agency login)	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
University of Belgrade, Serbia	BS	09/1976	Electrical Engineering
University of Belgrade, Serbia	MS	09/1979	Biomedical signal processing
University of California, Irvine	Ph. D	06/1983	Biomedical Image Processing and AI

NOTE: The Biographical Sketch may not exceed four pages. Follow the formats and instructions below.

A. Personal Statement

Research interests

1. Machine learning and big data applied to problems in health, bioinformatics, education and SW Engineering
2. Explainability of Machine Learning
3. Usability and user experience
4. Practical SW Engineering and its relation to teamwork

B. Positions and Honors

Positions:
Associate Chair, CS Department, San Francisco State University 2015 - present
Chair, CS Department, San Francisco State University 2003 – 2015
Director, SFSU Center for Computing for Life Sciences 2005 – present
VMware, Senior Director, Applications 2001 – 2002
Dotcast, Palo Alto, Sr. Director/VP of SW 2000 - 2001
IBM Almaden Research center, San Jose, Senior Manager 1986-2000
IBM Almaden Research center, San Jose, Researcher 1983 - 1986
Institute Boris Kidric, Belgrade, Yugoslavia, Engineer 1976 - 1981

Honors:
IEEE Fellow since 1998 (for leadership in content based retrieval area and IBM's QBIC project)
Blue Chip Award from Lou Gerstner, IBM CEO, 1994
IBM Research Awards in 1989, 1991, 1993 for technical work

C. Selected Peer-reviewed Publications

- D. Petkovic, M. Sosnick-Pérez, K. Okada, R. Todtenhoefer, S. Huang, N. Miglani, A. Vigil: "Using the Random Forest Classifier to Assess and Predict Student Learning of Software Engineering Teamwork" Frontoiers in Education FIE 2016, Erie, PA, 2016
- D. Petkovic: "Using Learning Analytics to Assess Capstone Project Teams", IEEE Computer, Issue No.01 - Jan. (2016 vol.49). (invited)
- Dragutin Petkovic, Marc Sosnick-Pérez, Shihong Huang, Rainer Todtenhoefer, Kazunori Okada, Swati Arora, Ramasubramanian Sreenivasen, Lorenzo Flores, Sonal Dubey: "SETAP: Software Engineering Teamwork Assessment and Prediction Using Machine Learning", Proc. FIE2014, Madrid, Spain 2014
- Okada K, Flores L, Wong M, Petkovic D, "Microenvironment-Based Protein Function Analysis by Random Forest", Proc. ICPR - International Conference on Pattern Recognition, Stockholm, 2014
- L. Buturovic, M. Wong, G. Tang, R. Altman, D. Petkovic: "High precision prediction of functional sites in protein structures", PLoS ONE 9(3): e91240. doi:10.1371/journal.pone.0091240
- D. Petkovic, K. Okada, Marc Sosnick, Aishwarya, Iyer, Shenhaochen Zhu, R. Todtenhoefer, S. Hiang: "A Machine Learning Approach for Assessment and Prediction of Teamwork Effectiveness in Software Engineering Education", Frontiers in Education (FIE), Seattle, WA 2012
- Petkovic, Dragutin; Thompson, Gary, Todtenhoefer, Rainer.: "Assessment and Comparison of Local and Global SW Engineering Practices in a Classroom Setting ", The 13th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2008: Madrid, Spain, June 2008).
- M. Flickner et al.: "Query by Image and Video Content: The QBIC System", IEEE Computer, Special Issue on Content Based Retrieval, September 1995, pp. 23-32. **(over 4300 citations)**
- 14 US patents issued

D. Research Support

Ongoing:

SFSU PI of NIH sub-grant U54EB020405 "Mobility Data Integration to Insight", Stanford, PI Prof. S. Delp, $35 K direct costs/year, for four years, started 2015. Engaged in SW engineering contributions, with SFSU graduate students

SFSU PI of NIH sub-grant 2R01LM005652-19A1 (main PI Prof. R. Altman, Stanford University): :"Text Mining for High-fidelity Curation and Discovery of Gene-drug-phenotype Relationships ". Engaged in SW Engineering, usability and data management aspects, with one SFSU co-PI, CCLS research staff and SFSU graduate students (4 years, started 2016)

Completed:

SFSU PI of NIH sub-grant (main PI Prof. Russ Altman, Stanford University NIH U54 GM072970) on Physics Based Simulation of Biological Structures Simbios (8 SFSU students involved), completed 2013 .

PI of collaborative NSF TUES grant 1140172 " Transforming the Understanding, Assessment and Prediction of Teamwork Effectiveness in Software Engineering Education using Machine Learning". Includes joint teaching and research on global SW engineering with co-PIs Prof. R. Todtenhoefer (Fulda, Germany), and Shihong Huang (FAU, Florida). Completed 2016

SFSU PI of NIH sub-grant (main PI Prof. Russ Altman, Stanford University NIH R01 LM005652) on "Annotating Functional Sites in 3-D Biological Structures" (10 SFSU students involved so far). Completed 2016.