

Shaveen Singh

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EDUCATION

- PhD in Information Technology, Monash University, Australia* 2016-2019
Advisors: Prof. Bernd Meyer and Dr. Aldeida Aleti
Thesis: Using Online Document Usage Data to Improve Teaching and Learning Design
- Post Grad. Diploma in Tertiary Teaching (PGCTT), The University of the South Pacific, Fiji Islands* 2015-2015
Specialized Courses: ED401 Learning and Teaching in Higher Education
ED403 Innovations in Learning Technologies and Professional Practice
- MSc. in Computer Science, The University of the South Pacific, Fiji Islands* 2011-2014
Advisor: Dr. Sunil P. Lal
Thesis: Intelligent Student Progress Monitoring in an E-Learning Environment using Neural Network Trained using Memetic Algorithm
- M.S. in Comp. Sci. & Info. Systems (MCINS), The University of the South Pacific, Fiji Islands* 2009-2013
Specialized Courses: Artificial Intelligence, Advanced Software Engineering,
Business Network Technologies and Data & Information Security
- PG Dip in Comp. Sci. & Info. Systems (PGDCIS), The University of the South Pacific, Fiji Islands* 2006-2007
Specialized Courses: Data Mining, Enterprise Systems, Project Management,
and Mobile Technologies
- BSc. in Comp. Sci. & Info. Systems, The University of the South Pacific, Fiji Islands* 2002-2004

WORK EXPERIENCE

- Sessional Lecturer, Monash University, Melbourne, Australia* Jul 2017 – Nov 2017
- Coordinator & Lecturer: FIT5211 - Algorithms and Data Structures
 - Lecturing, preparation of course material, managing Teaching Team& assessments and unit admin duties.
- Teaching Associate, Monash University, Melbourne, Australia* Feb 2016 – Now
- Facilitate Tutorial and Lab sessions for post graduate courses FIT5145 (Introduction to Data Science), FIT5147 (Data Exploration & Visualisation) and FIT 5196 (Data Wrangling).
 - Marking of student projects and assignments.
- Subject Coordinator, The University of the South Pacific, Suva, Fiji* Jul 2011 - Jan 2016
- Coordinating the delivery of one of the largest courses at USP – UU100 (approx. 2000 student per semester & 14 Teaching Assistants) in consultation with colleagues in 12 regional Pacific Island Campuses.
 - Delivering instruction sessions and support for students
 - Leading curriculum development and other information literacy initiatives.
 - Coordinator & Examiner for: UU100 – Communication & Information Literacy [2011-2016]
CS001 – Foundation of Professional Practice [2013-2016]
UU100A - Communication & Information Literacy (7wk Module) [2012-2016]
- Tutor in CS/IS, The University of the South Pacific, Suva, Fiji* Mar 2006 - Jun 2011
- Facilitate tutorial and practical sessions in various IT courses ranging from Programming Languages, Data Structures, Databases, Web Development, Networking, Project Management and Data Mining.
 - Marking student assessments

- Perform Sales Analysis & Forecasts for Crest & Tuckers Group.
- Assist in feasibility study of new products (costing) and Capital Expenditure (Capex) projections.
- Report generation and ERP System Enhancements (Middle-ware development)

PUBLICATIONS

Refereed Conference Full Papers

- [C1] Singh S., Chand A., Lal S. P.: **Improving Spam Detection Using Neural Networks Trained by Memetic Algorithm**. In: Proceedings of IEEE 5th International Conference on Computational Intelligence Mathematical Modeling and Simulation, Seoul, Korea, pp. 55-60. (Sept, 2013).
- [C2] Singh S., Lal S. P.: **Using Feature Selection and Association Rule Mining to Evaluate Digital Courseware**. In: Proceedings of IEEE International Conference on ICT and Knowledge Engineering, Bangkok, Thailand, pp. 1-7. (Nov, 2013)
- [C3] Singh S., Jokhan A., Sharma B., Lindley D.: **Supporting Sustainable Student Learning At USP Through the Use of Eportfolios**. In: Proceedings of IEEE Conference on E-Learning, E-Management and E-Services, Sarawak, Malaysia, pp. 68-72. (Dec, 2013)
- [C4] Singh S., Lal S. P.: **Educational courseware evaluation using machine learning techniques**. In: Proceedings of IEEE Conference on E-Learning, E-Management and E-Services, Sarawak, Malaysia, pp. 73-78. (Dec, 2013)

Conference Short Papers

- [S1] Singh, V., Sharma, B. N., Jokhan, A. D. and Singh, S. (2013) **Early Warning System**, In: Proceedings of the 12th Pacific Science Inter-Congress Suva, Fiji, pp. 165-169 (Jul, 2013)
- [S2] Singh, S., Sharma, B. N. and Jokhan, A. D. **Implementing programme - wide eportfolio to support sustainable student learning at USP**, In: Proceedings of the 12th Pacific Science Inter-Congress, Suva, Fiji, pp. 112-116. (Jul, 2013)
- [S3] Singh, S., Sharma, B. N. and Vanualailai, J. **An interactive window for multi-agent simulations**, In: Proceedings of the 2006 New Zealand Mathematics Colloquium, Hamilton, New Zealand (Dec, 2006)

Refereed Journal Articles

- [J1] Singh S., Jokhan A., Sharma B. N. and Lal S. (2011) **An innovative approach of progressive feedback via artificial neural networks**. Journal of Machine Learning Technologies, ISSN: 2229-3981 & ISSN: 2229-399X, Volume 2, Issue 2, pp-64-71.

TALKS (CONFERENCE & SYMPOSIUMS)

<i>Visualising Student's Thought Process</i> Monash University, Caulfield Campus, Melbourne	14 Dec 2016
<i>Learning Analytics using Early Warning System</i> Vice-Chancellor's Learning & Teaching Forum , University of the South Pacific, Suva, Fiji	10 Sep 2014
<i>Towards greater Industry-Academia collaboration and achieving USP Graduate Attributes</i> Vice-Chancellor's Learning & Teaching Forum , University of the South Pacific, Suva, Fiji	10 Sep 2014
<i>Early Warning System for Students</i> Moodle Moot AU Conference , Melbourne, Australia,	23 Jun 2013

<i>Capturing student-generated learning with Mahoodle to support collaborative and inclusive learning framework</i> Moodle-Mahara Meetup , Rydges SouthPark – Adelaide, South Australia.	8 May 2013
<i>Intelligent Student Monitoring in the Transforming Educational Landscape</i> Vice-Chancellor's Learning & Teaching Forum , University of the South Pacific, Suva, Fiji	3 Oct 2013
<i>EWS: Innovative Student Monitoring in an eLearning Environment</i> Vice-Chancellor's Learning & Teaching Forum , University of the South Pacific, Suva, Fiji	10 Sep 2012
<i>Research Skills Development (RSD) Framework</i> Vice-Chancellor's Learning & Teaching Forum , University of the South Pacific, Suva, Fiji	10 Sep 2012
<i>A Progressive Diagnosis of Students Performances Using Machine Learning</i> International Conference on Chemistry, Environment and Climate Change , Suva, Fiji	14 Sep 2011
<i>Enhancing eLearning: Progressive feedback via ANNs</i> International Conference on Mathematics of Date , Allahabad, India	31 Dec 2010

PROJECTS AND CONSULTANCY

- [P1] Consultancy: Ministry of Education, Fiji Islands
Member of Year 11 & 12 Curriculum Working Committee – FSLC Computer Studies 2013 – 2015
 Reviewing the Fiji School Leaving Certificate (FSLC) Computer Studies Prescriptions based on the recommendations in the Fiji Government 2013 National Curriculum Framework. Reviewing and rewriting the present Computer Studies Prescriptions & Textbook to be ready for implementation in 2015. Conduct up-skilling workshops for secondary school teachers.
- [P2] Consultancy: Goodman Fielder Intl (Fiji) Ltd, Suva, Fiji
Provision of Report Generation and Analysis Services 2014
 Design recommended set of financial, cost and operational reports to satisfy the needs of SMT, Finance and Operations Team. Provision of training of GF staff to ensure all users have good understanding of the system in order to be able to use it on daily basis for custom reporting
- [P3] Project: Faculty of Science, Technology & Environment, University of the South Pacific
Early Warning System (EWS) Project - USP 2012 – 2014
 Data Mining in Student Learning Management Systems at USP. Implementation of a real-time reporting & alert system to flag underperforming students. The system generates various progression and trends reports on student behaviour/performance for Course Coordinators and personalized visual feedbacks for students and is used by all the faculties at USP.
- [P4] Consultancy: Vijay Auto Spares Limited, Suva, Fiji
Inventory Management System 2008
 Development and Implementation of Inventory Management System (SPRMIS) for Vijay Auto Spares Ltd, Suva, for Inventory, Point of Sale and Quotation Management. I was responsible for developing the Quotation System, User Administration and middleware for integration. The system runs on client-server platform and supports integration with other Financial Packages used by the organization.
- [P5] Consultancy: Goodman Fielder Intl (Fiji) Ltd, Suva, Fiji
Production Planner System 2006
 Development & Implementation of a Production Schedule Planner for Tuckers Group. A standalone system integrated with Forecast and Procurement modules to view production schedules and assist in recording production data and reporting on the key performance drivers. (Programming Languages: Visual Basic, MS Access)

[P6] Company Project: Goodman Fielder Intl (Fiji) Ltd

Automated Tax Reconciliation

2005

As an employee of the organization, developed a reconciliation system designed to extract account and tax information from the ERP system and perform account reconciliation and VAT lodgment calculation for Crest Small Holder Farmers.

[P7] Company Project: Goodman Fielder Intl (Fiji) Ltd

Automated Bank Reconciliation

2005

Developed a middleware to convert the electronic Bank Statement Supplied by the bank into a format suitable for the Financial Software of GFI and report on lodgments not credited and un-presented cheques.

SKILLS AND COMPETENCY

I have competency and experience in the following tools and platforms:

- Windows/Ubuntu/LINUX Systems
- Oracle, MS SQL Server and MySQL databases.
- Android App Development
- C/C++/C#, Java, Visual Basic 6.0 and .NET development framework.
- Microsoft & Open Office Suites.
- PHP, JavaScript, CSS and XML web scripting languages.
- Python, R, D3.js, Tableau and SAS for Data Analysis and Visualisation

Strong Background in Programming and Systems Development

- Extensive knowledge in systems development starting from project scoping, requirements elicitations, project planning, process mapping, design, documentation, development and deployment, user training, usability evaluation, acceptance testing and maintenance.

Strong Accounting & Finance Background:

- Completed 7 of the 8 undergraduate Accounting courses at USP in areas of Corporate, Managerial, Financial Accounting and Auditing.
- Experience working with ERP Systems, Financial Report Design tools, Business Analysis, Product Costing, Budgeting, Forecasting and Supply Chain Management.

Strong Background in ICT Education and Learning Technologies:

- Extensive experience in instructional design, instructor training and knowledge of Learning Technologies such as OERs, Moodle, Mahara, Smart Boards and Mobile Learning.

POSITIVE ATTRIBUTES

- Team player and ability to work with minimum supervision
- Good verbal and written skills.
- Professionalism and strong leaderships skills.
- Strong analytical, planning and organization skills.
- Innovative with a strong desire to excel.