Vikram Gadicherla
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EDUCATION:

Indian Institute of Technology Madras, Chennai
Ph.D. (in Progress) in Geotechnical Engineering, (July 2015 – Present)
GPA: 9.3/10.0

Rensselaer Polytechnic Institute, New York
Master of Science in Civil Engineering, August 2003
GPA: 3.87/4.0

Indian Institute of Technology, Madras, India
Bachelor of Technology in Civil Engineering, May 2001
GPA: 7.93/10.0

WORK EXPERIENCE:

Arup India Private Limited (Part of the Arup group), Hyderabad

Senior Engineer, Digital Technology   July 2013– Present
Responsibilities:
- First point of contact for members in Indian team for technical support and explaining tasks.
- Working with product director in UK to ensure projects deadlines and quality requirements are met.
- Development and maintenance of Geotechnical and Seismic applications
- Co-ordinate with sales team to ensure timely customer support and plan new releases.

nHance Engineering Solutions (Part of the Arup group), Hyderabad

Team Lead, Engineering Software Team   May 2010– June 2013
Responsibilities:
- First point of contact for members in India for technical support and explaining tasks relating to engineering software.
- Development and maintenance of Geotechnical and Seismic applications
- Ensure projects deadlines and quality requirements are met.

Team Lead, Geotechnical Software Team   Apr 2007– May 2010
Responsibilities:
- Development and maintenance of Geotechnical and Seismic applications
- Ensure that high quality and standards of Geotechnical software are maintained by Indian team in terms of quality and productivity.
- Provide mentoring and guidance to new staff.
- Address team's needs to perform their jobs effectively.

Senior Software Engineer   Sep 2005 – Apr 2007
Responsibilities:
- Development and maintenance of Geotechnical applications
- Provide mentoring and guidance to new staff.

Software Engineer   Sep 2004 – Sep 2005
Responsibilities:
- Development and maintenance of Geotechnical applications

FWT Inc., Fort Worth, TX

Structural Engineer   Dec 2003 – Jun 2004
Responsibilities:
Designed various types of communication structures such as Monopoles, Lattice Towers, and Guyed Towers according to telecommunications industry standard ANSI/TIA 222-F.

Rensselaer Polytechnic Institute, Troy, New York

Research Assistant   May 2002 – Aug 2003
Developed programs in MATLAB and PATRAN for evaluating the behavior of buried pipes subject to large fault offsets and performed centrifuge tests on buried pipeline models.

Teaching Assistant   Aug 2001 – May 2003
Assisted students with their doubts, held review sessions, proctored various examinations, and graded homework and tests, in the following courses: Engineering Statics, Concrete Design and Civil Engineering Capstone Design

PUBLICATIONS: Michael O'Rourke, Vikram Gadicherla, and Tarek Abdoun, **"Centrifuge modeling of PGD response of buried pipe",** Earthquake Engineering and Engineering Vibration, June 2005, Volume 4, Issue 1, pp 69-73

Michael O'Rourke, Vikram Gadicherla, and Tarek Abdoun, **"Centrifuge Modeling of Buried Pipelines",** Proceedings of the Sixth US Conference and Workshop on Lifeline Earthquake Engineering.

PROJECTS: **Oasys Pile (Pile capacity and settlement analysis program)**
Implemented a non-linear FE method method to model the non-linear soil structure interaction using t-z curves. The motivating force behind this is to model stage loading and thermal loading which was not possible with the existing solver based on Mindlin method.

Oasys Sismic (Probabilistic Seismic Hazard Analysis tool)
Development of solver for Sismic program, and a significant portion of User Interface. The solver was originally written in FORTRAN. This was converted into C++, and many significant features were added to the existing solver. Guided team members in development of UI. Involved in the testing and validation of the solver.

Oasys Xdisp (Excavation induced settlements)
Development of new feature relating to smoothening of settlement contours for excavations with reentrant corners.

Oasys Pdisp (Soil settlement program)
Involved in the development of new features for Pdisp – a soil settlement calculation program. These features include implementation of a new interface to expose the solver of the program to another client program.
Supervised development of new graphical output of displacement profile.

Oasys Frew (Flexible retaining wall software)
Development of a composite program by adding the functionality of existing programs – Stawal and FrewNodes. Guided team members in their respective development tasks.

Oasys Slope (Slope stability program)
Involved in development, and supervision of Bug fixing and UI improvements in Oasys Slope – a slope stability analysis software.

Oasys Greta (Gravity retaining wall analysis)
Implementation of new features in solver based on the input from geotechnical engineers.

Oasys Drive
Development of Drive - a pile driving program from an existing DOS version. The solver was converted from FORTRAN and implemented in C++, and the UI was designed using MFC.

Development of buried pipelines analysis tools
Developed non-linear finite element models of a buried pipeline subject to fault movements using MATLAB, ABAQUS and PATRAN. Performed tests on small scale models of buried pipelines in centrifuge to validate the results from finite element analysis.

Development of Structural FEM programs
Developed finite element programs in MATLAB and C to read the data from input file, set up and solve the finite element equations, and post process the results for linear static problems in structural mechanics and heat transfer.

Development of Seismic analysis tools
Developed MATLAB programs to evaluate the response of structures subject to earthquakes using time domain, frequency domain and modal analyses.

Experimental determination of p-y curves of soil
Prepared small scale pile models, instrumented them with strain gages and performed tests on these models to determine p-y curves of Nevada sand and validate the results from LPILE program.

Fragility analysis of underground metro stations (Ph.D. project)
Running multiple simulations to predict the damage susceptibility of underground metro stations due to earthquakes considering the stochastic variability in earthquake ground motions, material properties, methods of construction etc.

IT SKILLS:

Languages	- C, C++, C#, Fortran, VB, Python
Others	- Matlab, Mathcad, Maple, Lpile, LabView, Abaqus, Patran, Autocad,

AWARDS/ APPRECIATIONS:

- Appreciated by seismic engineers in Arup for contribution to PEER verification project.
- Awarded silver bar for completing 10 years working with Arup.