Coding for Petroleum Engineers: An Introduction

Jared Hammond

Senior Reservoir Engineer, Consultant

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Engineers Australia, Level 11, 108 King William Street, Adelaide

Lunch 12-12:30; Presentation 12:30-13:15

Abstract:

How safe are petroleum engineers from automation? Not as safe as you might think.

This presentation provides an introduction to practical programming with Python and applies it to petroleum engineering. It also fits the 'do more with less' mantra that the industry is facing.

It will discuss who is already using programming in the industry and show you how to start programming today.

While programming can seem daunting to first time users, the core programming concepts will be introduced using a spreadsheet and comparing it to basic Python methods.

The presentation will also show you when and why to use programming over spreadsheets and demonstrate a simple Python program to generate bulk simulation case sensitivities.

Biography:

Jared Hammond is a Senior Reservoir Engineer and Programmer with eight years of experience and has spent the past three years working with the Python programming language. According to LinkedIn he is one of three people in Australia with these two skills.

As a contract reservoir engineer by day he is working for PetroAus clients on simulation studies and integrated production modelling.

As a self-taught programmer by night he has created programs that make his engineering workflows faster, including:

- A generator for simulation deck sensitivities
- Creating material balance inputs from a 15+ year production dataset for a field - getting close to the term big-data!
- Producing exploration target production profiles from monte carlo simulations

Taking his Python knowledge outside of reservoir engineering, he created OneOilJobSearch.com which is also written in Python. Each hour it searches hundreds of job titles across 50+ websites, normalises them and puts all oil jobs on one site.

Jared holds a Bachelor of Engineering (Petroleum) from the University of Adelaide.

Please RSVP by COB Friday 27th July by registering for this event online (details below).

$20 SPE & EA members / **$50** non-members / **$15** student members

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All enquiries should be directed to functions@spe-sa.org.

Please advise if you have any special dietary requirements on your internet booking or via email.