

## CONTACT

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## SKILLS

**Physical Containment Level 2 Facilities** 5+ yrs

**Microbiological Techniques** 4+ yrs

**Linux** 5+ yrs

**Open Source Tools** 5+ yrs

**Django** 5+ yrs

**Html/CSS** 3+ yrs

**Javascript** 3+ yrs

**GIT** 3+ yrs

## TECHNICAL SKILLS

- Operating System - Windows, MacOS
- Programming Language - R programming, HTML/CSS
- Text Editor - Visual Studio Code, Brackets
- Data Carpentry Methods - R programming, OpenRefine, GitHub
- Statistical Analysis - R, GraphPad Prism, miniTab
- Databases/Surveys - REDCap, FileMaker Pro Advanced
- Other Software/Tools - Microsoft Office Suite, Adobe Creative Cloud, ImageJ

## Maria Mempin, PhD

[scholar.google.com/maria\\_mempin](https://scholar.google.com/maria_mempin)

## PROFILE

Researcher with over 4 years Microbiology experience in academia, looking for an opportunity to begin a new career in Industry.

I obtained my PhD in Medical Microbiology and Clinical Science from Macquarie University in 2019. I then worked as a Postdoc researching the role of bacteria in cancer.

For example, highlight your team work, time management, presentation, analytics, communication skills

I am self-motivated, enthusiastic and an enthusiastic worker ready to join my next team. Bringing forth a proven track record of achievement and a reputation for positive collaboration. Highly competent communicator skilled in multitasking and effectively communicating with others. Confident, hardworking, and committed to seeing results in whatever position I am in. Reliable and dedicated to finding a place that will benefit from my superior skill set and energetic drive.

Independently designed plans and conducted experiments using sound scientific analysis and expert knowledge of established and the latest cutting-edge techniques

Lab custodian of the Department's bacteria lab, have a strong understanding of and experience with the legislation, policies and requirements that can impact the laboratory environment.

Looking for an opportunity to work on an important research study in an institution that provides professional development, interesting experiences and personal growth.

general skills - interpersonal communication, organisation, presentation, teaching, leadership, teamwork, work ethic, problem solving, critical thinking

IT Consultant with strong theoretical skills and a passion for OpenSource software.

DevOps Engineer, specialized both in automation and in custom application development, experienced with large projects and heterogeneous infrastructures. The link between development and operations, comfortable in both.

Customer-oriented and structured method of working, focused on quality and maintainability. Highly motivated to work in a team, both comfortable in big companies as in small teams.

## PROFESSIONAL EXPERIENCE

# COMMUNICATION SKILLS

Python	5+ yrs
Ansible	5+ yrs
Linux	5+ yrs
Open Source Tools	5+ yrs
Django	5+ yrs
Html/CSS	3+ yrs
Javascript	3+ yrs
GIT	3+ yrs

Honorary Postdoctoral Fellow  
Macquarie University

Jun 2020 - Jun 2022

- Conducted ongoing research into the role of bacteria in cancer through data and statistical analysis of 16S rRNA sequencing data
- Maintenance of patient database
- Teaching undergraduate students as a lab demonstrator and tutor on a casual basis

## EDUCATION

2015 - 2019

Doctor of Philosophy  
Macquarie University

Medical Microbiology, Clinical Science - Main thematic priority of those master studies was numerical time series analysis of non-linear dynamical systems. Besides data analysis and transformation, great importance was attached to fast algorithms and efficient software architecture.

In the master thesis a numerical approach for the detection of the direction of interaction was proposed. Analysis of this new approach was performed with the help computer simulations to find out its limits and to compare it to another commonly used approaches.

This numerical approach was highly optimised for cluster computing and implemented in c++ . For those purposes a distributed computing cluster had to be set up and administrated.

2013 - 2014

The topic for the bachelor's thesis was 'Feshbach resonance'. A numerical application was built to calculate the diagrams.

## 2010 - 2012

### **Bachelor of Medical Science in Biomedical Sciences** Macquarie University

Main thematic priority of those master studies was numerical time series analysis of non-linear dynamical systems. Besides data analysis and transformation, great importance was attached to fast algorithms and efficient software architecture.

#### **Research:**

- Designed, conducted and evaluated research into surgical infection, device contamination and host immune response to infection using standard microbiology techniques, real-time PCR, cell culture, flow cytometry and microscopy
- Optimised and developed co-culture assays of bacterial biofilm and human derived immune cells
- Maintained and purified bacteria, inoculated bacteria, prepared growth media, prepared agar plates, bacterial enumeration including serial dilutions, plating, spreading, CFU counts
- Analysed, interpreted, and presented data at internal and external seminars
- Supervisor to graduate and undergraduate students to integrate new knowledge created through research with learning and teaching/contributing to data generation and analysis
- Maintained records/accurate documentation of all tests performed, methods used and final disposition according to Standard Operating Procedures using...
- Collaborated with leadership team to identify relevant questions and determine the best methods of collection
- Planned, modified, and executed research techniques, procedures and tests
- Conducted Biosafety Applications on work involving microorganisms classified as risk group 2 and above, and human and animal clinical and diagnostic samples

#### **Lab Custodian:**

#### **Teaching:**

- Managed daily lab operations - autoclave, ordering and stocking lab supplies
- Prepared media, reagents and materials as needed for lab testing
- Maintained lab stock cultures
- Coordinate lab purchases
- Provided inductions to new lab users
- Ensured work was carried out in accordance with work health and safety and privacy requirements
- Supervised and trained undergraduate and postgraduate students in safe laboratory research and maintenance procedures
- Developed Safe Work Instructions for the lab, completed risk assessment and hazardous chemical risk assessment on newly purchased reagents, chemicals or assay kits, or if the risk assessment is greater than five years old. All documents were uploaded to the Departments' wiki page for other lab users
- Lectured postgraduate and undergraduate students on bacterial biofilms

## ACHIEVEMENTS

## CERTIFICATIONS

### LPIC 1 - Linux administrator

Certificate issued by the Linux Professional Institute to prove abilities in Linux administration

### IBM InfoSphere Advanced DataStage Essentials

Intense course about the ETL technologies and the use of IBM DataStage.

### Jump Start Program

Two months full-time training in object oriented programming in Java SE/EE, software development, testing and modern enterprise web-frameworks. Other topics were object oriented design patterns, test-driven development, SQL-databases and webserver in Java environment (Tomcat / Glasfish / JBoss / Jety)

### Online Classes

It is important for me to stay up to date with the newest topics in the field of IT. In DevOps it is also important to have a general overview and a hands-on experience on them. Therefore, besides intense article studies, I also keep myself up to date with online classes.

- Lab demonstrator to undergraduate students on microbiology techniques
- Introductory R programming course demonstrator for the Department...

### Research Assistant Macquarie University

Sep 2018 - Feb 2019

- Conducted research to investigate and solve problems
- Maintained familiarity with regulatory guidelines and ethical standards
- Documented and maintained test result (lab books, reports etc.)
- Assisted in procurement, operation, and maintenance of laboratory supplies and equipment



