Quintin de Jongh

Mechanical Engineer

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Cape Town, South Africa

Dedicated, focused and self-motivated Mechanical Engineer with a passion for precision manufacturing and design. I strive to design and develop specialized machinery and products, as well as to create and implement process specific models. Inquisitive in nature and excited to learn, I possess a large array of skills that I am continually eager to expand upon. I enjoy working in cutting-edge environments and being involved in the development of new technologies.

Professional Experience

Mechanical Engineer

January 2023 - Present

Skeg Product Development

- Project co-ordination and management for development of a hydrogen reformer and connection to fuel cell.
- Client liaising, manufacturing management, component specification.
- System and component design; CAD, FEA and CFD simulations.

Lecturer, Teaching Assistant/Tutor

March 2022 - November 2022, February 2019 - May 2020

University of Cape Town

- Convened, examined and prepared content for the undergraduate manufacturing sciences course while managing four tutors.
- Tutored seven exit level engineering subjects over three semesters, assisting lecturers and students.

Graduate Engineer

March 2022 - November 2022

BMEC Technologies

- Assisted with multiple mechatronic/mechanical designs.
- Learned PCB design through the use of CircuitStudio.
- Assembling electro-mechanical controllers used on industrial farms.

Education

MSc in Mechanical Engineering (with Distinction)

2021 - 2022

University of Cape Town

Thesis: "Flexible Media Polishing Machine for Ti-6Al-4V Components"

BSc in Mechanical Engineering

2016 - 2020

University of Cape Town

Journal Publications

August 2022 - IJAMT (doi.org/10.1007/s00170-022-09863-0)
Spring-Dashpot Vibrational Model for the Investigation of Viscoelasticity in Gelatinous Abrasive Media and Subsequent Control of Parameters for the Blast Polishing of Ti-6Al-4V Alloy

May 2022 - JBSMSE (doi.org/10.1007/s40430-022-03543-6)
Polishing of a Selective Electron Beam Melting Processed Tungsten Carbide Punch through High Velocity Impinging of Flexible Media

May 2021 - IJAMT (doi.org/10.1007/s00170-021-07315-9)
A Study of Intelligent Grinding Systems with Industrial Perspective

For a full list of projects/publications please browse through my personal website (quino97.github.io) and LinkedIn page.

Softwares and Packages

- SOLIDWORKS
- PTC Creo Parametric and Simulate
- MATLAB
- DAQ (Dewesoft and LabVIEW)
- Autodesk Simulation CFD
- Python
- Flutter/Dart
- 3D Printing Slicer Softwares (Cura)
- CircuitStudio (base knowledge)
- MS Office

Relevant Skills

- Product and Machine Design
- Contact Mechanics/Tribology
- Process Modeling and Validation
- System Design
- Experimental Design (DOE)
- Problem-Solving
- Project Management
- Report and Academic Writing
- Professional Communication

Extra Curricular

Football

- UCT Football Team.
- 5-a-side football (since 2018).

Software Development

- Intermediate Python (essentials, OOP, data structures and algorithms)
- Development of Flutter applications and widgets for both personal and work projects.

Culinary

- Two month internship as a Chef and Assistant Manager at a Dim Sum restaurant where I worked as a waiter for three years.

Languages

- English (Native)
- Afrikaans (Conversational)

References

Pierre Becker
Owner,Mechanical Engineer | Skeg Product Development
pierre@skeg.com

Dr. Reuben Govender
Colleague and Lecturer | UCT
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Heidi Wilson
BMEC Executive
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