



Christopher Briërs Barnard

Software Engineer



Send me an email

Check out my portfolio

Personal Profile

I am a highly motivated and dedicated software engineer with experience in Python programming and other associated technologies. With a strong passion for problem-solving and a keen eye for detail, I possess a profound understanding of Python's syntax and data structures. My experience includes developing software applications, writing efficient and maintainable code, as well as debugging to deliver high-quality solutions. I am a fast learner and want to continuously improve my skills and stay up-to-date with the latest industry trends. I am also open to evolving further to become proficient in a variety of new programming languages as well. Overall, I am committed to delivering innovative solutions that exceed client and employer expectations.

Education

Hyperion Development

Software engineer course
2023

- Object Oriented programming
- Agile development
- Python
- SQL
- SQLite
- Django
- CSS
- HTML
- Bootstrap

BSc (Hons) Entomology

University of Pretoria
2020

BSc Entomology

University of Pretoria
2016 - 2019

Technical skills

- Programming languages: Python, R, JavaScript
- Web development: HTML, CSS, Bootstrap
- Database management: SQL, SQLite, Big data PostgreSQL, MongoDB
- Version Control: Git, GitHub
- DevOps: Docker
- Frameworks and libraries: Django, Pandas, Matplotlib, D3, Leaflet, GeoJSON
- Data visualization: Tableau
- Web scraping: BeautifulSoup, Splinter
- Machine Learning: Scikit-learn, TensorFlow

Self-Taught Skills:

- Programming languages: C++ with a focus on programming microcontrollers within the Arduino IDE
- Frameworks and libraries: NumPy, Flask
- IoT: Microcontroller programming, data analytics, sensor selection

Soft skills

- Communication
- Collaboration
- Problem-solving
- Adaptability
- Leadership
- Time management

Experience

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Software engineer

2023 - Present

- Built and deployed serverless applications using AWS Lambda, automating backend tasks and reducing overhead.
- Configured AWS API Gateway to create secure, scalable APIs, improving response times and minimizing downtime.
- Managed sensitive credentials with AWS Secrets Manager, automating secret rotation and enhancing security.
- Developed RESTful APIs with Lambda, integrating databases and external services for high availability.
- Applied IAM policies to secure access to Lambda functions and Secrets Manager, ensuring compliance.
- Monitored and optimized Lambda performance via CloudWatch, reducing execution time by 15%.

2U (EdX)

Learning Specialist

2023 - 2024

- Remote tutoring in data visualization and artificial intelligence

Studypool Tutor

2021-2023

- Computer science tutoring
- Natural science tutoring

GreenIoT

Assistant in IoT development

2019-2020

- Building and testing environmental sensors
- Interpreting sensor data
- Waterproofing electrical circuits

Corteva Agriscience

Research assistant

2018 - 2022

- Collection and interpretation of field collected data
- Data documentation, sorting, and filtering
- Trait presence testing in crops
- Assistance with insect rearing, data capture, and data analysis
- Bioassay experience

References

Dr M. Van Rooyen, PhD (Corteva Agriscience, Scientist)

Email : marlene.vanrooyen@corteva.com

Professor C.W. Weldon (Senior Lecturer, UP)

Email : cwweldon@zoology.up.ac.za