ERIN DAVID CULLEN

SOFTWARE ENGINEER

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📍 Pretoria East, South Africa

EDUCATION

National Senior Certificate
St. Albans College (IEB)   2017

Bachelor of Engineering (Mechanical)
University of Pretoria 2018 - 2021
Completed 3 years

Bachelor of Computing (Data Science)
Belgium Campus   2023 - 2025
Current Average 77% over 3 years
In 2026 we work in internships as part of the honours degree

PERSONAL QUALITIES

- Accurate & Precise
- Detail-Oriented
- Ethical
- Efficient & Effective
- Hard-Working
- Responsible
- Analytically Minded
- Self-Motivated
- Independent
- Curious & Always Learning
- Ambitious
- Simple & Clear

ABOUT ME

I thrive on learning and applying knowledge to build systems that make a meaningful difference. With a background in mechanical and software engineering, as well as business and people management, I bring a blend of technical and operational insight. In 2022, I began working on a toolset focused on solving challenges in the hire industry, drawing from hands-on experience in business operations, logistics, and systems design. I'm currently studying BComputing with a focus on data science and databases, and I'm eager to apply my skills in a professional environment.

Early in my academic journey, I pursued mechanical engineering for four years before deciding to transition into software — a field that better aligned with my passion for building and problem-solving. That decision allowed me to shift my focus toward technology and systems development, where I feel I can create the most impact.

HOBBIES

- Carpentry (Woodworking)
- Hiking
- Photography

CERTIFICATES

- Mensa PTA Member 2024
- Dale Carnegie Generation.Next 2016
- University of Pretoria Most Innovative Project (EBIT Faculty) 2019
- Zeiss Geometric Dimensioning & Tolerancing 2021

CAREER OBJECTIVE

- My objective is to gain hands-on experience through a 2026 Honours internship, and to continue developing as a software engineer and add value as I grow.

WORK EXPERIENCE

Coastal Hire Centurion
Junior Manager &   2021 - 2023
Software Developer

- Oversaw branch operations and built custom inventory and logistics systems. Led development of internal tools and acted as a technical consultant to Kerridge Systems during ERP rollout.

Independent Software Developer
Full Stack Developer   2022 - present

- Building a modern ERP system for the hire industry, leveraging expertise in business operations, software engineering, and system design. Responsible for database architecture (PostgreSQL), backend (Python/ Flask), and frontend (Next.js).

PROJECTS

- AetherFlow ERP System (for a hire company)
  - Diary
  - Logistics
  - Driver Scheduling
  - Employee Task Management
  - Inventory
  - AI agent (automation)
- AI Chat System
  - Locally run
  - Highly adaptable
  - Modular
  - Designed to be integrated into systems

RESOURCES

- LinkedIn
  - https://www.linkedin.com/in/de-cullen/
- GitHub
  - https://github.com/BeardedSeal77

TECHNICAL SKILLS

- Python (Backend, APIs, Automation)
- JavaScript / TypeScript
- Node.js
- Flask (Python)
- Next.js (React)
- SQL (PostgreSQL, SQLServer)
- MongoDB
- Docker & Docker Compose
- Bash (WSL, Linux CLI)
- Python API Testing

SOFTWARE

- Git & GitHub
- VS Code
- Postman (API Testing)
- N8N (Node Based Workflow automation)
- Ollama (AI Integration)

SYSTEM ARCHITECTURE & DEVOPS

- REST API Design
- Microservices Architecture
- Containerization (Docker)
- Linux Server Management (Ubuntu + WSL)
- Virtual Environments & Dependency Isolation (venv, pipenv, Docker)

AI & AUTOMATION

- Whisper (Speech-to-Text)
- Zero-Shot Classification (NLP)
- OpenAI API Integration
- Ollama with PostgreSQL memory
- Autonomous Agent Design (Planned)

REFERENCES

Sebastian Tridente - 076 825 6695
(Epi-Use Labs Software Engineer)