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.

Earlier in my academic career, I spent four years studying mechanical engineering before deciding to transition into software and system design. Making that switch wasn't easy, but it was the right move, one that allowed me to pursue a path more aligned with how I think and what I love to build.

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. I aim to make a positive impact 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

- Developing a comprehensive diary system tailored for the hire industry. Collaborating with business owners and software engineers to gather domain insights and continuously refine the solution. Responsible for database architecture (PostgreSQL), backend development (Python/Flask), and frontend implementation (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)