Curriculum Vitae

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Summary:
Software engineer with a strong foundation in building full-stack systems from scratch, with recent experience focused on developer tooling and infrastructure for LLM-powered applications. Comfortable navigating ambiguity, moving fast without breaking things, and shipping thoughtful, production-grade features. Experience spans AI-enabled social products, mobility and payments platforms, and cutting-edge LLM tooling. Particular strengths in system architecture, DevOps, and building developer experiences that scale.

1 Technical Skills

Languages: Python, TypeScript/JavaScript, Swift, Java, C++

Frameworks Libraries SwiftUI, React, Next.js, Django, FastAPI, Express, Node.js, Celery

Databases & Caching: PostgreSQL, MySQL, Redis, Firebase

Cloud & DevOps: AWS (EC2, ECS, Aurora, S3, CloudFront, Rekognition), Terraform, Docker, CI/CD (GitHub Actions)

2 Professional Experience

Humanloop — AI Tooling Startup *Product Engineer* March 2025 – June 2025
- Contributed across the stack at fast-moving AI startup building infrastructure and UX for LLM application development
- Led overhaul of prompt versioning system, redesigning UI and backend model to improve workflows.
- Drove improvements to SDK (TypeScript and Python) and created CLI to enable local development, version control, and seamless prompt iteration
- Led Pydantic v2 migration
- Collaborated with founders and early customers to prototype, test, and ship user-facing features

gather — AI Social Assistant *Sole Developer* August 2024 – January 2025
- Independently designed and launched full-stack social platform from concept to App Store release in 5 months
- Built native iOS app in SwiftUI with real-time chat, push notifications, and media sharing [App Store Link]
- Developed scalable backend using Django, PostgreSQL, Redis, and Celery for async task processing
- Integrated AI features
- Deployed infrastructure with Terraform: AWS ECS, Aurora, ElastiCache, and CloudFront CDN
- Set up CI/CD with GitHub Actions and container registry for automated deployments

Loop — Mobility and Payments Platform *Founding Engineer* September 2022 – July 2024
- Built end-to-end software stack powering $1.2M annual revenue mobility and payments platform

- Developed WhatsApp-to-payment pipeline via WhatsApp Business API + PayStack, enabling novel payment UX and attracting Visa partnership
- Architected React/TypeScript frontend and Node.js/Express backend for booking and ride management
- Designed AWS cloud infrastructure, databases, and deployment pipelines from scratch

Elevat3d   *Cofounder, Lead Frontend Developer*   July 2022 – August 2024
- Led frontend development for mining analytics tool shortlisted for Y Combinator (top 7% globally)
- Built complex blast visualization UI using HTML Canvas and integrated ML model results
- Developed SPA in React with Redux, integrated with FastAPI backend
- Implemented user auth and file system with Firebase; collaborated closely on ML integration

3   Education

Bachelor of Science in Computer Science   *December 2024*
University of Cape Town, South Africa   *Dean's Merit List, GPA: 77.55%*
- Relevant Coursework: Machine Learning, Artificial Intelligence, Robotics, Data Structures and Algorithms, Software Engineering
- **Final Year Project - SeaClear:** Built full-stack water quality monitoring system for Cape Town
    - Selected as top project among 8 groups for publication and presentation
    - Developed with Next.js frontend and Flask backend, using Docker Compose for deployment
    - Implemented WebSocket integration, MongoDB database, and Apache server configuration
    - Built comprehensive admin interface for content management and moderation

4   Research Experience

Automatic Damage Recovery in Hexapod Robots   July 2023 - Present

- Developed Python simulation framework using PyBullet physics engine to study robot damage adaptation
- Generated extensive datasets of robot walking behaviors on national supercomputer (CHPC)
- Implemented and tested SUPG controller for damage recovery in simulation environment
- Analyzed and visualized results to demonstrate effectiveness of adaptation strategies
- Work led to full paper acceptance at 2025 IEEE Symposium on Computational Intelligence in Artificial Life (IEEE CIALIC) [10.1109/ALIFE-CIS64968.2025.10979837]

5   Competitions

FinHub Hackathon 2023 – 1st Place
Built a full-stack voting platform on Algorand with smart contracts and secure vote verification. Received development funding and individual developer grant.
     Loop Q Prize 2022 – 4th Place
Built a CNN-based system for speech emotion recognition. Resulted in six-month research position offer.

6   Extracurricular Activities

- **Athletics:** Competitive gymnastics, marathon running, sport climbing
- **Community:** Hellenic Students' Association Cape Town - Event organization