**🌿 Hong Kong Species Finder - 3-Minute Pitch**

**The Problem**

Hong Kong's biodiversity is under threat, but we lack accessible tools to:

* Predict future conservation needs
* Make data-driven environmental decisions

**Our Solution**

An **AI-powered web platform** that transforms 24 years of Hong Kong species data into actionable insights.

**🚀 Key Features**

**1. Interactive Species Explorer**

* **500+ species** from 2001-2024 data
* **Real-time search** with Wikipedia photos
* **Interactive maps** showing current distributions

**2. AI Predictions (The Game-Changer)**

* **Neural network model** predicts 2025 species locations
* **Pre-computed results** for instant responses
* **Visual predictions** on interactive maps

**3. User-Friendly Interface**

* **No technical knowledge required**
* **Mobile-responsive design**
* **One-click predictions**

**🔧 Technical Innovation**

**Smart Architecture**

* **FastAPI backend** with optimised data processing
* **Pre-computed AI predictions** (no waiting time)
* **Memory-efficient deployment** on AWS Lightsail

**AI Model**

* **Grid-based neural network** using PyTorch
* **Historical pattern analysis** (2001-2024)
* **Coordinate-based predictions** with high accuracy

**💡 Impact & Applications**

**Conservation Planning**

* Identify species at risk
* Plan protected areas for 2025
* Resource allocation optimisation

**Research & Education**

* Accessible biodiversity data
* Visual learning tools
* Citizen science engagement

**Government & NGOs**

* Evidence-based policy making
* Environmental impact assessments
* Conservation priority mapping

**🎯 Demo Highlights**

1. **Search any species** → Instant results with photos
2. **Click "Predict 2025"** → AI shows future locations
3. **Interactive maps** → Explore current vs predicted distributions

**📈 Scalability**

* **Cloud-deployed** on AWS (permanent URL)
* **API-ready** for integration with other systems

**🏆 Why This Matters**

* **First-of-its-kind** for Hong Kong biodiversity
* **Combines 24 years of data** with cutting-edge AI
* **Immediate practical value** for conservationists
* **Accessible to everyone** - no technical barriers

**Live Demo**:

http://3.25.93.9

*"Making Hong Kong's biodiversity data accessible and actionable through AI"*