Paul Houghton

- CTO, [Neubit Oy](), Helsinki
- Work and Associated Research
  - Non-invasive BioSignal data collection (contact, optical, medical field use)
  - Real-time, in-phone emotion processing
  - Haptic biofeedback for emotion control
  - Autonomic nervous system actuation
  - Mobile user experience with LLMs and specialized smaller models
  - Machine Learning in edge devices
  - Edge-centric architecture with Rust

Interests

- Research collaboration
  - We have medical and consumer sensors, actuators, data sets and use cases
- Federated machine learning at the network edge
  - Can we enhance data privacy and reliability by training where the data is then merging between edges?
  - Data logistics and security of smaller models (QUIC peer to peer with..?)
  - Ethics: What governance and flexibility of such a distributed system would most benefit society?
  - Working with and replacing cloud LLMs
  - Bad actors, power efficiency, use cases, market timing