Ranadeep Biswas, Ph.D.
Informal Systems

Paris, France

ranadeep.in   github.com/rnbguy

Work Experience

- **Developer Researcher in Distributed Ledger Technologies**
  - *Informal Systems*
  - July 2021 - Present
  - Specializing in formal methods for automated testing and quality assurance.

Skills

- **Programming Languages**: Rust, Typescript/Deno, Go, Python, Bash, C++, Java
- **Operating Systems**: Linux, proficient in Bash scripting and Unix systems management
- **Formal Specification**: TLA+
- **Markup Languages**: Markdown, LaTeX
- **Web Development**: Preact, GitHub Pages
- **Version Control**: Git
- **CI/CD**: GitHub Actions
- **Containers**: Docker

Projects

- **Modelator**: Model-based testing framework on top of Apalache (symbolic model checker)
- **Atomkraft**: Testing framework for Cosmos-SDK blockchains that integrates Modelator
- **Blockchain Audits**:
  - Gravity Bridge
  - IBC Protocol
  - Mars Protocol
  - Namada
  - Axelar

Career Goals

Pursuing dynamic opportunities in the blockchain industry with an emphasis on research and development, I aim to contribute to creating valuable tools or products for the community. As a professional with a strong background in formal methods and blockchain projects, I am skilled in mathematical problem-solving and have experience in junior product and developer relations roles. I am eager to explore positions that allow me to blend managerial or leadership responsibilities while staying engaged in coding and addressing technical challenges. A preference for open-source projects offering competitive salaries and remote work options further aligns with my long-term career objectives.

Education

- **Ph.D. in Computer Science**
  - *University of Paris (previously, University Paris Diderot)*
  - November 2017 - March 2021
  - Thesis: *Testing Weakly Consistent Distributed Storage Systems*

- **Master of Science in Computer Science**
  - *Chennai Mathematical Institute*
  - August 2015 - April 2017

- **Bachelor of Science in Mathematics and Computer Science**
  - *Chennai Mathematical Institute*
  - August 2012 - April 2015

Publications

Available on my website.