

# FLORIAN SURI-PAYER

PhD Candidate - Computer Science - Cornell University

LinkedIn, Web

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## EDUCATION

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**Doctor of Philosophy (Ph.D.), Computer Science**

*August 2018 - Present*

Research Area: Distributed Systems

Supervised by Lorenzo Alvisi & Natacha Crooks

Cornell University, Ithaca, USA

GPA: 4.2

**Bachelor of Science (B.Sc.), Computer Science.**

*October 2015 - August 2018*

Thesis: *Unsupervised Anomaly Detection using ARIMA Forecasting*

Supervised by Florian Schmidt & Odej Kao

TU Berlin, Berlin, Germany

Grade 1.18 (summa cum laude)

## RESEARCH INTERESTS

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My passion lies in analytical thinking and formal rigor as applied to practical computing systems. My current research addresses the design of scalable and robust distributed systems, specifically efficient Byzantine fault tolerance, and low latency transaction processing with high throughput.

## AWARDS AND HONORS

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**BS Thesis recognition and Honors list**, TU Berlin.

*2018*

*Ranked Top 1% of all graduating students across all fields of studies. Thesis with distinction (1.0).*

**Nominated (2x) to German National Stipend Foundation**

*2015 & 2018*

*Top 5% of students across all fields of studies across Germany.*

**High School Valedictorian Honors**

*2015*

*Highest achievable summa cum laude grade (1.0) in national-level exams.*

## PEER-REVIEWED PUBLICATIONS

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**NSDI'25** Shoal++: High Throughput DAG BFT Can Be Fast!

*Balaji Arun, Zekun Li, Florian Suri-Payer, Sourav Das, Alexander Spiegelman. Pre-print.*

**SOSP'24** Autobahn: Seamless high speed BFT

**Florian Suri-Payer\***, Neil Giridharan\*, Ittai Abraham, Lorenzo Alvisi, and Natacha Crooks. \*Equal Contribution.

**Eurosys'23**, Morty: Scaling Concurrency Control with Re-Execution

*Matthew Burke, Florian Suri-Payer, Jeffrey Helt, Lorenzo Alvisi, and Natacha Crooks.*

**PODC'23**, BeeGees: Stayin Alive in Chained BFT

*Neil Giridharan, Florian Suri-Payer, Ittai Abraham, Natacha Crooks, and Heidi Howard.*

**SOSP'21**, Basil: Breaking up BFT with ACID (transactions)

**Florian Suri-Payer**, Matthew Burke, Zheng Wang, Yunhao Zhang, Lorenzo Alvisi, and Natacha Crooks.

**UCC Companion'18**, Unsupervised Anomaly Event Detection for Cloud Monitoring Using Online Arima

*Florian Schmidt, Florian Suri-Payer, Anton Gulenko, Marcel Wallschlagel, Alexander Acker and Odej Kao.*

**CloudCom'18**, Unsupervised Anomaly Event Detection for VNF Service Monitoring Using Multivariate Online Arima

*Florian Schmidt, Florian Suri-Payer, Anton Gulenko, Marcel Wallschlager, Alexander Acker and Odej Kao.*

## RELEVANT WORK EXPERIENCE

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**AptosLabs: Research Intern**  
Palo Alto, USA

*May-August 2023*

- Blockchain Research Group, supervised by Alexander Spiegelman
- Work on transactional blockchain systems and consensus protocols

**UC Berkeley: Visiting Researcher**  
Berkeley, USA

*March-May 2022*

- RISELab, Data Systems and Foundation Group, supervised by Natacha Crooks
- Work on theoretical foundations of blockchain consensus & query processing for blockchain systems

**Microsoft Research Cambridge: Research Intern**  
Cambridge, UK

*June-August 2021*

- Confidential Computing Group, supervised by Antoine Delignat-Lavaud & Cedric Fournet
- Work on Microsoft's Confidential Consortium Framework

**Cornell University Graduate Researcher**  
Ithaca, USA

*August 2018 - Present*

- Laboratory for Advanced Systems Research, supervised by Lorenzo Alvisi
- Work on transactional blockchain systems & concurrency control for distributed databases

## RELEVANT TEACHING EXPERIENCE

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**Operating Systems (CS4410)**, Cornell University, *Head Teaching Assistant* 2019, 2020

**Object Oriented Programming (CS2210)**, Cornell University, *Head Teaching Assistant* 2018

**Object Oriented Programming Add-On (CS2211)**, Cornell University, *Co-instructor* 2018

**Algorithms and Data Structures**, TU Berlin, *Teaching Assistant* 2018

**Discrete Structures**, TU Berlin, *Teaching Assistant* 2017

**Computability and Complexity**, TU Berlin, *Teaching Assistant* 2017

**Formal Languages and Automata**, TU Berlin, *Teaching Assistant* 2016

## TECHNICAL & SOFT SKILLS

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- **Independent problem solving skills**, as exercised in day to day research work, and demonstrated by project work and publications.
- **Strong communication abilities**. Extensive experience giving high profile talks, teaching students in class room and office hour settings, as well as research collaborations. Substantial writing experience through paper writing, grant applications, and tech-blog posts.
- **Leadership experience**, both in a research setting – mentoring multiple undergrads –, and teaching setting – managing class organization, TA coordination, and exam design.
- **Programming Skills**: C++/C, Java, Python, Rust
- **Auxiliary Tools**: Latex, Git, MS Office, CloudLab

## MISC

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### **Academic Service**

- Reviewer: Distributed Computing'23, ACM TOCS'20; Reviewer aide: EuroSys'24, OSDI'20, SOSP'19

### **Extra Curricular**

- Licensed Tennis Trainer (German Level C), Part of Cornell Club Tennis

**Citizenship: USA, Austria**

### **LANGUAGES**

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English – Native, German – Native, French: Working Knowledge (Delf B1)