

### Position Held

2024–present **Assistant Professor**, *University of Georgia*.

### Postdoctoral Experience

2022–2024 **Postdoctoral Fellow**, *ETH Zürich*.  
Host - Prof. Kenneth G. Paterson.

### Education

2017–2022 **Ph.D. in Computer Science**, *University of Bristol*.  
Advisors - Prof. Oliver Johnson and Prof. Bogdan Warinschi.

2013–2017 **M.Eng in Mathematics and Computer Science**, *University of Bristol*.  
Graduated with First Class Honours.

### Professional Experience

2020–2021 **Research Intern**, *ETH Zürich*.  
Host - Prof. Kenneth G. Paterson.

### Publications

- 2024 **Understanding Leakage in Searchable Encryption: a Quantitative Approach.**  
Proc. Priv. Enhancing Technol. (PoPETS) 2024.  
Alexandra Boldyreva, Zichen Gui, Bogdan Warinschi.
- 2024 **SWiSSSE: System-Wide Security for Searchable Symmetric Encryption.**  
Proc. Priv. Enhancing Technol. (PoPETS) 2024.  
Zichen Gui, Kenneth G. Paterson, Sikhar Patranabis, Bogdan Warinschi.
- 2023 **Security Analysis of MongoDB Queryable Encryption.**  
USENIX Security 2023.  
Zichen Gui, Kenneth G. Paterson, Tianxin Tang.
- 2023 **Rethinking Searchable Symmetric Encryption.**  
IEEE S&P 2023.  
Zichen Gui, Kenneth G. Paterson, Sikhar Patranabis.
- 2019 **Encrypted Databases: New Volume Attacks against Range Queries.**  
ACM CCS 2019.  
Zichen Gui, Oliver Johnson, Bogdan Warinschi.

### Talks

- 2024 **Understanding Leakage in Searchable Encryption: a Quantitative Approach.**  
Proc. Priv. Enhancing Technol. (PoPETS) 2024.
- 2024 **SWiSSSE: System-Wide Security for Searchable Symmetric Encryption.**  
Proc. Priv. Enhancing Technol. (PoPETS) 2024.
- 2023 **Rethinking Searchable Symmetric Encryption.**  
IEEE S&P 2023, Encryption for Secure Search and other Algorithms 2023.
- 2019 **Encrypted Databases: New Volume Attacks against Range Queries.**  
ACM CCS 2019.

## Professional Activities and Services

- **Conference Program Committee Memberships:** ACM CCS 2023, ACM CCS 2024.
- **External Reviewing - Conferences:** IACR Eurocrypt, IACR Asiacrypt, IEEE S&P.

## Languages and Programming Languages

- Fluent in English. Native Chinese speaker.
- Experienced in C, C++, Java, JavaScript, Python and SQL.