

# KYLE REYES

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## EDUCATION

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**Brown University**, 4.00/4.00 GPA

Providence, RI | Expected May 2023

- *Sc.B. Mathematics-Computer Science*
- **Courses:** Abstract Algebra I-II, [Applied ODEs](#), [Complex Analysis](#), Real Analysis I-II, [Honors Multivariable Calculus](#), [Honors Statistical Inference I](#), [Mathematical Cryptography](#)
- **Activities:** 2-year co-captain of men's fencing team, former TA for 2 computer science courses

## PROGRAMMING EXPERIENCE

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**Twitter**, *Engineering Intern*

New York, NY | Jun – Aug 2022

- Refined search results to always suggest the account whose username matches the exact search query
- Improved customer experience by implementing tickets and various requests using Scala, Java, and React

**Amazon**, *Software Development Engineer Intern*

Seattle, WA | May – Aug 2021

- Migrated a batch job used for the Amazon Prime Rewards Visa Card to an AWS infrastructure (CDK, CloudFormation, CloudWatch, Fargate, S3, VPC, SecretsManager)
- Lowered cost, enhanced security, resolved potential conflicts with other batch jobs using Java and TypeScript

**Soham Sankaran**, *Software Engineer Intern*

Jun - Aug 2020

- Co-built [Moodplex](#), a web app that produces social media post rankings based on user comparisons
- Acquired trending posts from Twitter, Reddit, YouTube, Imgur, and Hacker News APIs using Go that was then stored in a PostgreSQL database
- Managed frontend using HTML, CSS, and JavaScript

## SKILLS

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**Languages:** Java, C, C++, Python, Go, OCaml, Racket, HTML, CSS, JavaScript, TypeScript, SQL, Bash, LaTeX, x64

**Technologies:** Git, SageMath, NumPy, TensorFlow, GDB | **Foreign Language:** Filipino (Fluent)

## COMPUTER SCIENCE PROJECTS

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**IP ([Spec](#)) + TCP ([Spec](#))**

Feb - May 2022

- Designed an abstract link layer using UDP and implemented the IPv4 protocol in a group of two using Go
- Supported routing through a modified version of RIPv2 with split horizon, poison reverse, and triggered updates
- Built a TCP implementation with a state machine, sliding window protocol, and zero window probing

**Dropbox ([Spec](#))**

Mar - Apr 2021

- Designed a stateless client for a secure file sharing and storage system in a group of two using Python
- Utilized provided symmetric & asymmetric encryption schemes, digital signatures, hash functions, HMACs, and random byte generators to meet security requirements

**ParselTongue ([GitHub](#), [Demo](#))**

Apr - May 2020

- Built a smart PageRank-based research paper parsing tool for Software Engineering final group project
- Implemented intelligent PDF text parsing using Java (other technologies used: Freemarker, Spark, MongoDB)