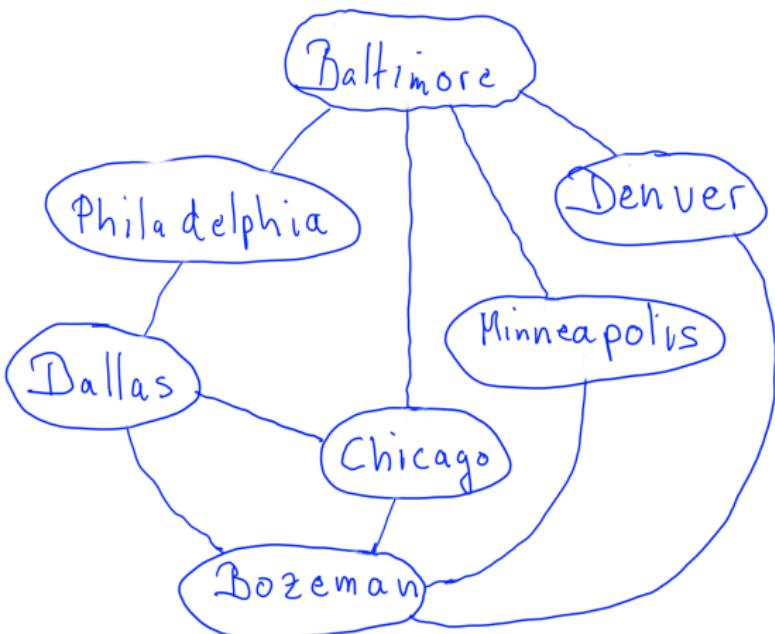


Computer Science - A breadth-first search

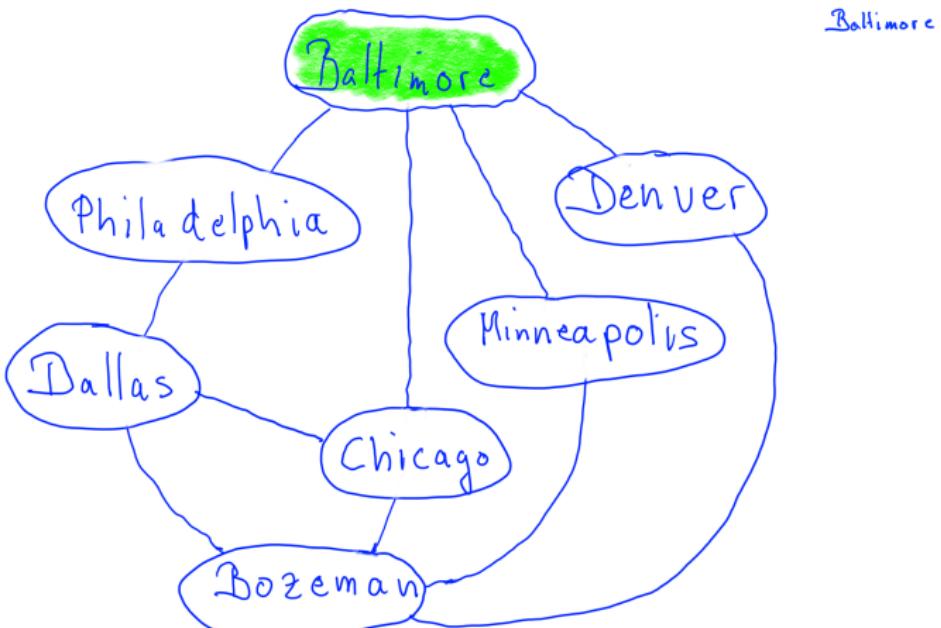
Markus Dale, medale@asymmetrik.com

March 2021

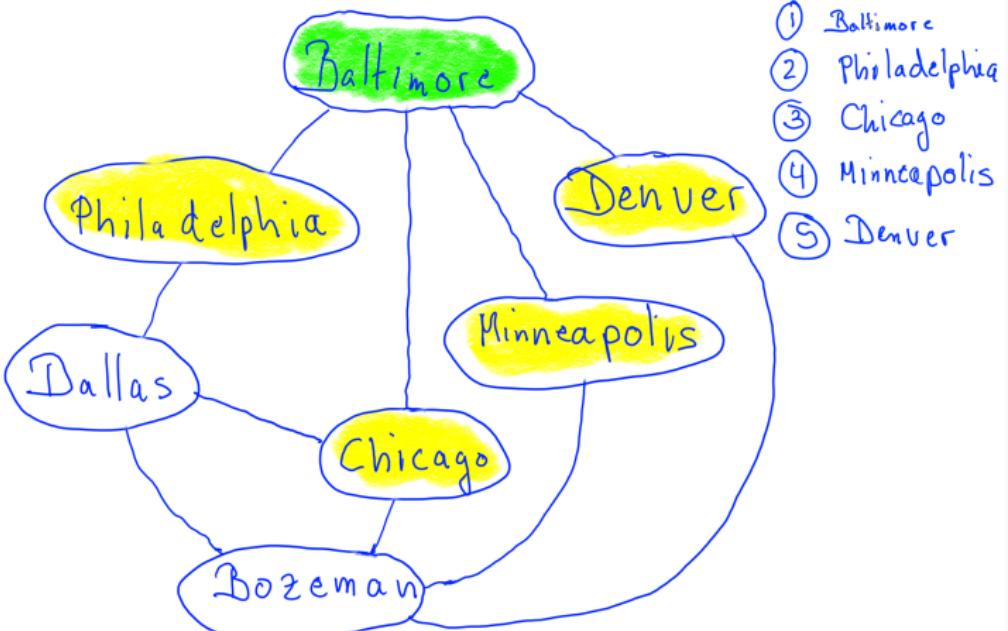
Computer Science - A breadth-first search



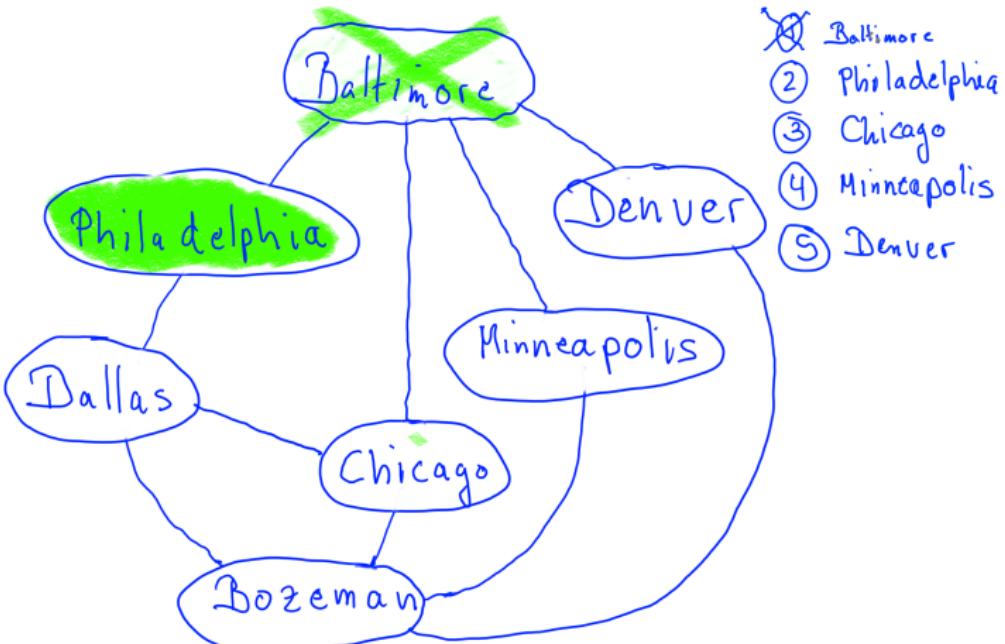
Breadth-first search (BFS) - starting in Baltimore



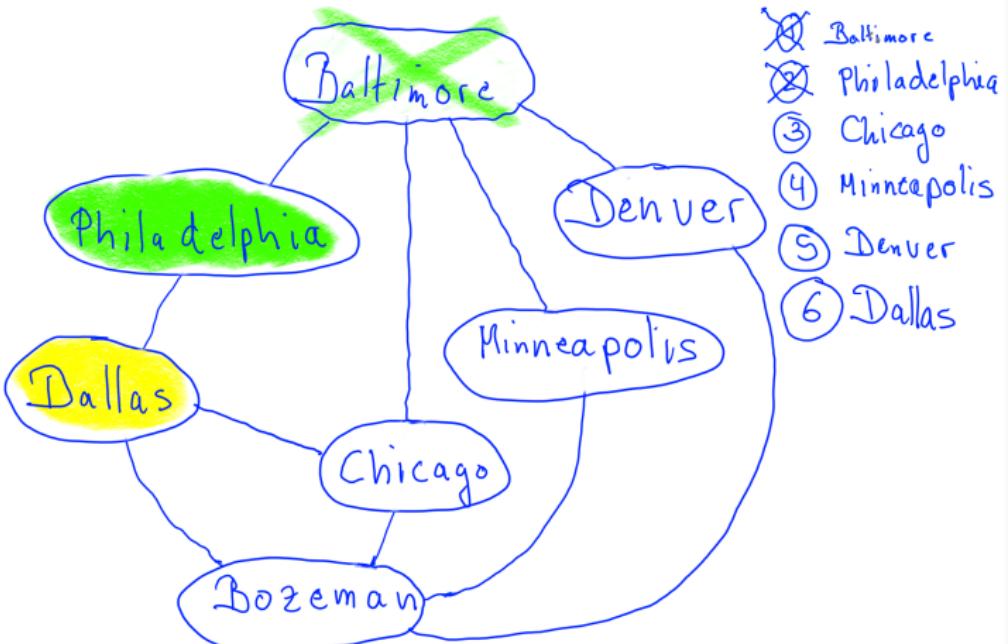
BFS - where can we fly to from Baltimore?



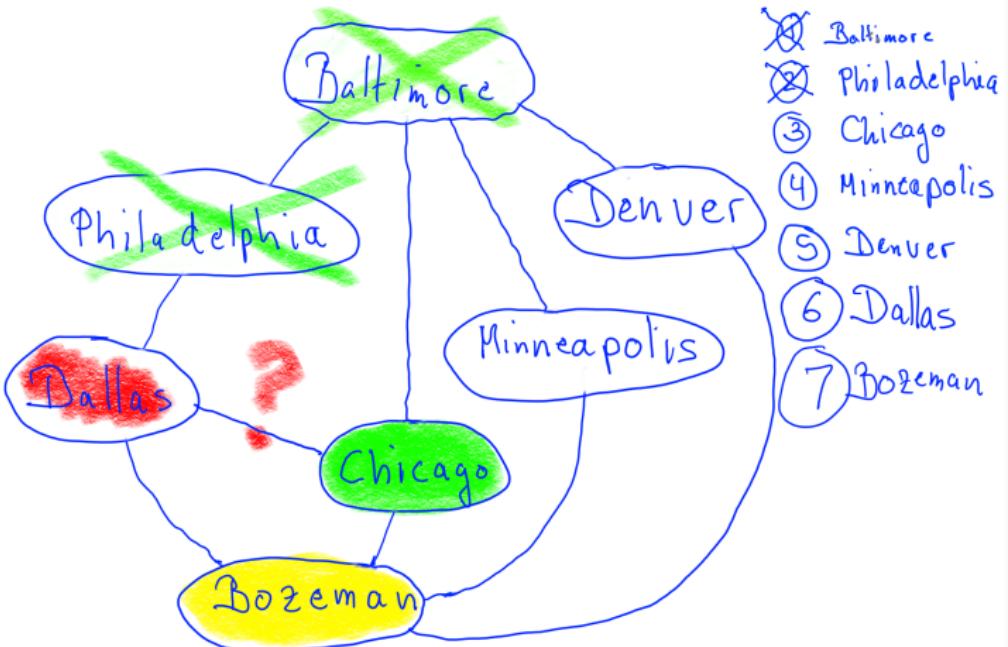
BFS - Next up, Philadelphia



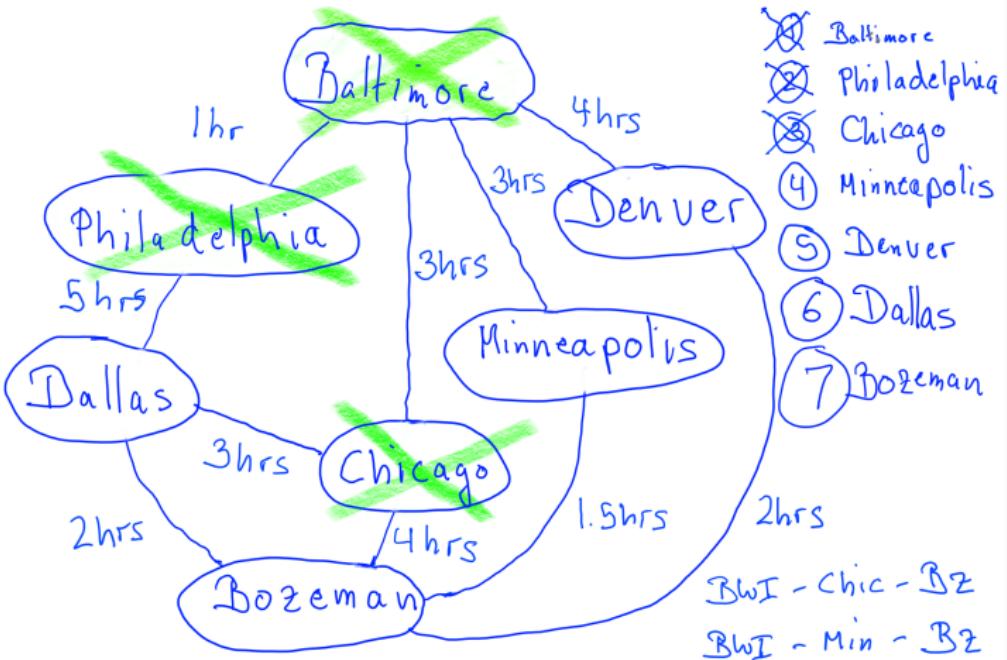
BFS - Adding Dallas



BFS - Exploring Chicago destinations



BFS - adding weights



Applications: Google Maps

Ellicott City, Maryland

United States Capitol, First St SE, Wash.

Add destination

Leave now ▾

OPTIONS

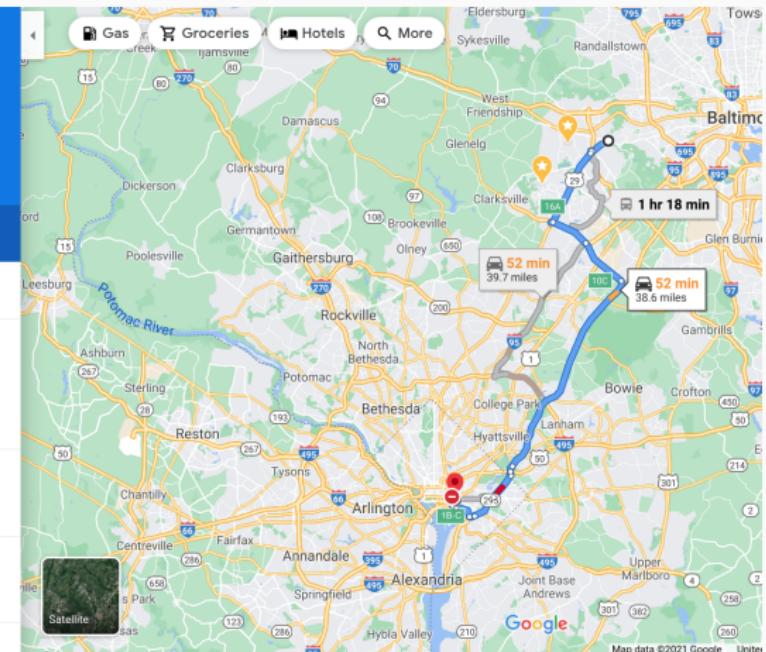
Send directions to your phone

via Baltimore-Washington Pkwy 52 min
Fastest route now, avoids road closures on 1st St NW

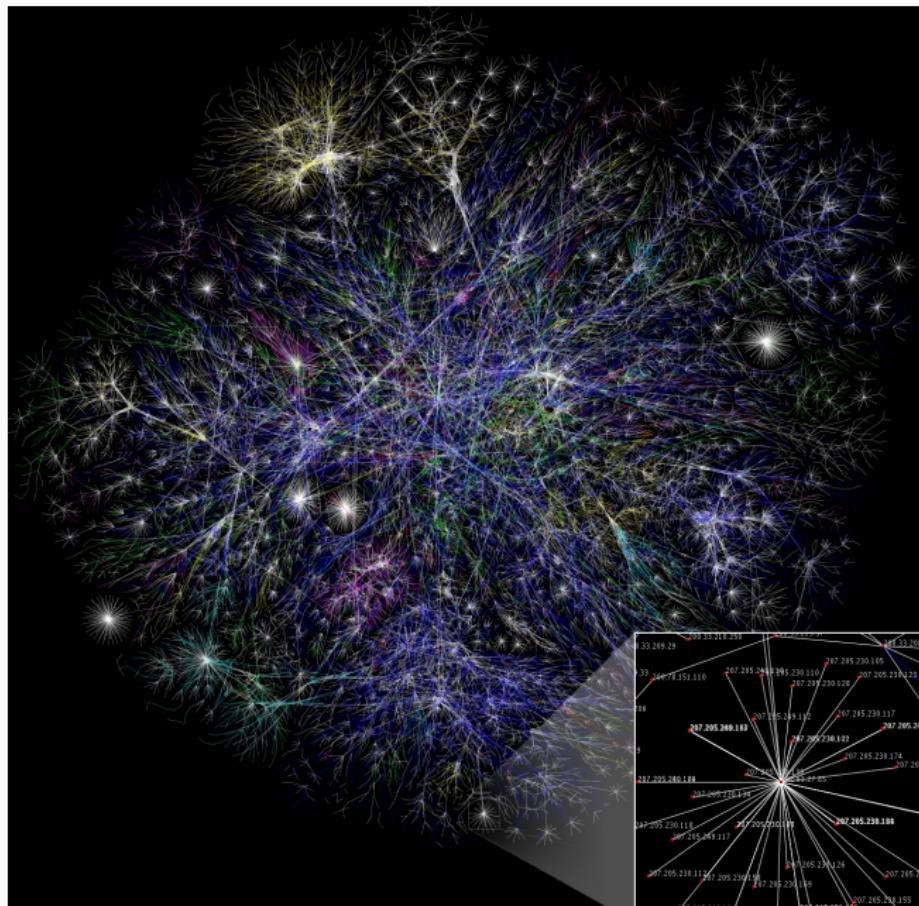
via I-95 S 52 min
Some traffic, as usual

5:00 AM (Monday)–6:18 AM 1 hr 18 min
345 ➤ ⚑

Explore United States Capitol



Foundational Enabler: Internet

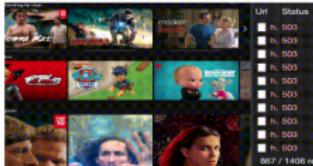


Computer Science Everywhere - Apps on Smart Phones





Netflix - Computer Science at Scale



Keeping Netflix Reliable Using Prioritized Load Shedding

How viewers are able to watch their favorite show on Netflix while the infrastructure self-recovers from a system failure



Netflix Technology Blog
Nov 2, 2020 · 8 min read

A Day in the Life of a Content Analytics Engineer

Part of our series on who works in Analytics at Netflix—and what the role entails



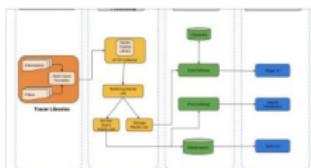
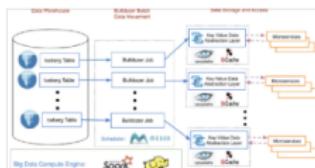
Netflix Technology Blog
Oct 30, 2020 · 6 min read

Netflix Android and iOS Studio Apps—now powered by Kotlin Multiplatform

By David Henry & Mel Yahya



Netflix Technology Blog
Oct 28, 2020 · 4 min read



Bulldozer: Batch Data Moving from Data Warehouse to Online Key-Value Stores

By Tianlong Chen and Ioannis Papapanagiotou



Netflix Technology Blog
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by Maulik Pandey



Netflix Technology Blog
Oct 19, 2020 · 10 min read

How Our Paths Brought Us to Data and Netflix

Q&A with Chris and Julie



Netflix Technology Blog
Sep 18, 2020 · 5 min read

Computer Science Everywhere - Precision Agriculture John Deere



Collect valuable information quickly and easily, so you can analyze it to make better decisions, or share it with your trusted advisors.

Computer Science degree

Computer
Programming

Algorithms

Discrete
Structures

General Track

Cybersecurity

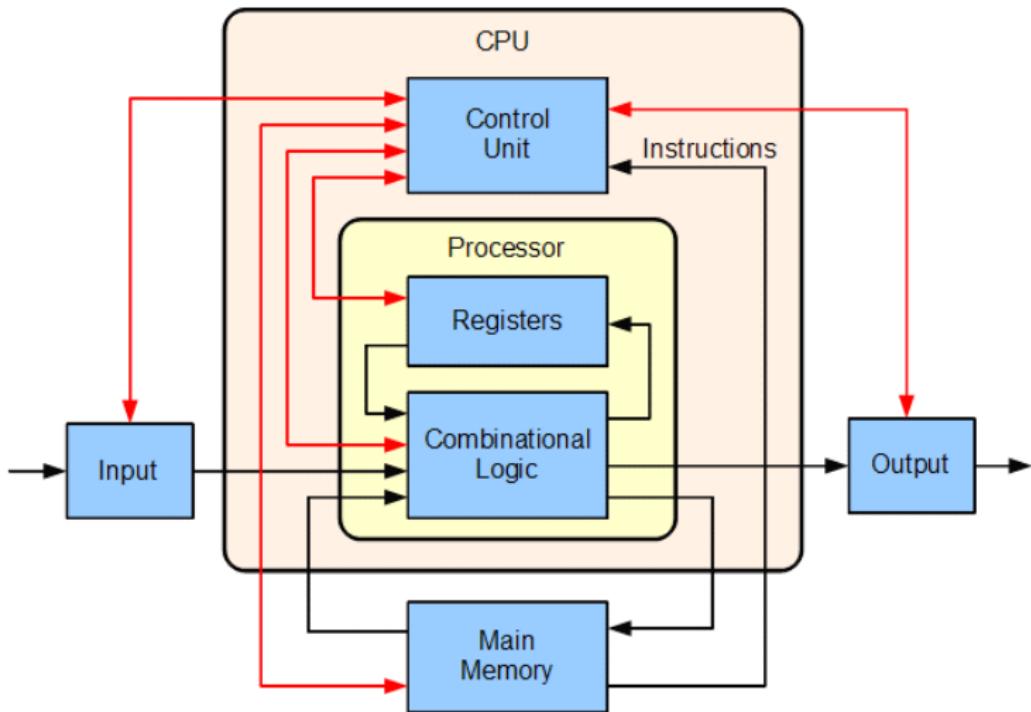
Data Science

Machine Learning

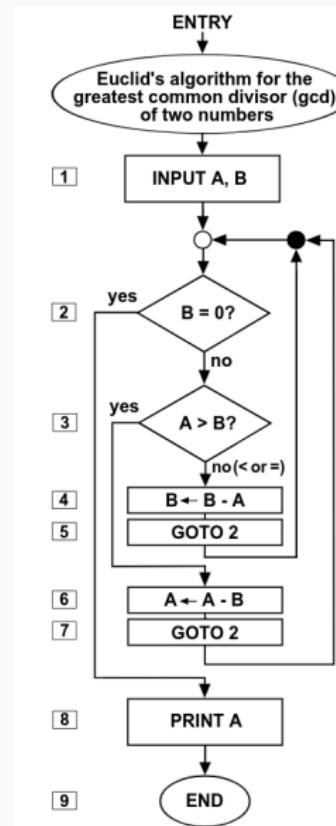
Computer Science General Track

<u>Systems</u> <ul style="list-style-type: none">- Computer Architecture- Operating Systems- Computer Networks	<u>Programming Languages</u> <ul style="list-style-type: none">CompilersSoftware EngineeringHuman Computer Interaction	<u>Numerical Analysis</u>
<u>Information Processing</u> <ul style="list-style-type: none">- Artificial Intelligence- Machine Learning- Computer Vision- Computer Graphics	<u>Theory</u> <ul style="list-style-type: none">Computer AlgorithmsCryptology	<u>Electives</u> <ul style="list-style-type: none">Game ProgrammingData ScienceDeep Learning

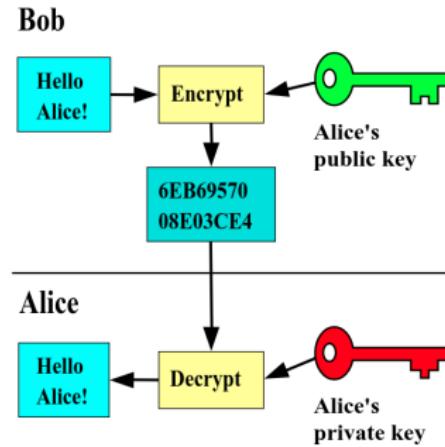
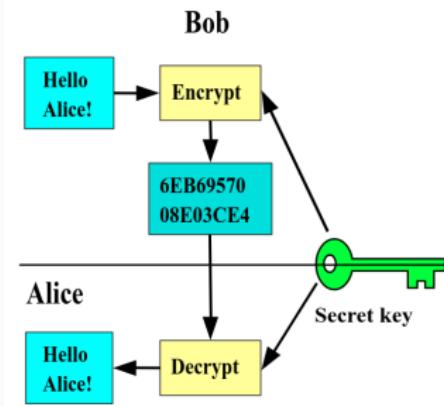
Computer Architecture



Computer Algorithms



Cryptography



Artificial Intelligence



Communications and Teamwork



Questions?

