

Cem Ratip

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EDUCATION

King's College London

BSc Computer Science (*Expected: First Class*)

Strand, London

Sep. 2021 – July 2024

Trinity School of John Whitgift

4 A-Levels: Maths (A*), Further Maths (A*), Computer Science (A*), Economics (A)

Croydon, Surrey

Sep. 2019 – July 2021

EXPERIENCE

Software Engineer Internship

Expedia Group

May 2023 – Sep. 2023

Angel, London

- Worked on bug fixing for the following Expedia Group brands: Vrbo, Expedia, Hotels.com, Bookabach and Stayz.
- Had my fixes released to production and demonstrated my work to the team during standups.
- Used Java, Kotlin, Node, GraphQL and Docker and wrote unit tests with JUnit, kotlin.test and Mockito.
- Communicated with other teams for approvals, requirement elicitation and information on other microservices.
- Worked in an existing team of 12 and used Jira for project management.

Backend Software Engineer

Green Group Enterprise

Aug. 2022 – Aug. 2023

Remote

- Developed a scalable backend API for the company's platform using TypeScript, Nest, MongoDB, Heroku, AWS Lambda, and AWS S3.
- Wrote unit and e2e tests, created a database seeder and implemented authentication procedures using passportJS.
- Mentored newcomers, managed code reviews, and operated in a CI/CD environment.

Frontend Web Developer Internship

Satalia

June 2019 – July 2019

Islington, London

- Collaborated in a three-person team to develop an informational AI progression website using React and deployed with Netlify.
- Gained insight into how the company coordinated teams of developers, met client specifications and managed version control.

PROJECTS

Undergraduate Research on Trading Strategies using Machine Learning | Python, AWS EC2

April 2024

- Conducted a comprehensive analysis of the efficacy of technical indicators in financial market trading using Long Short-Term Memory (LSTM) models.
- Trained LSTMs on 144 unique datasets derived from the S&P 500, BTC/USD, and EUR/USD across several time frames and date ranges.
- Developed a trading simulator to emulate a live trading environment to measure model performance.
- Executed the program in batches on a high-performance computing node at King's College London.
- Found that technical indicators often do not outperform OHLC data alone, especially in shorter time frames.
- Currently extending my research by applying LSTM model predictions to live financial markets.

Web Application (Frontend only) | React, Redux, Tailwind, Figma

May 2024 – Current

- Developing a peer-to-peer video game rental website (<https://game-rental-marketplace-website.vercel.app>).
- Using React, Redux and Tailwind for frontend and Figma for design and prototyping, resulting in a clean and professional UI.

Automated Cryptocurrency Trading Algorithm | Python, AWS EC2

Oct. 2019

- Created an algorithm to trade user-specified cryptocurrency pairs using the RSI indicator on live market data fetched from an API.
- Ran the algorithm on an AWS EC2 instance for 14 days, yielding a 7% net profit.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, Kotlin, Scala, JavaScript, TypeScript, MySQL, NoSQL, HTML, CSS

Frameworks: NodeJS, ReactJS, Flask, Django, Redux, Tailwind, ExpressJS, NestJS, Kafka, JUnit, Mockito, Tensorflow

Developer Tools: AWS EC2/S3/RDS/Lambda, Git, Docker, Heroku, Vercel, Netlify, MongoDB, Firebase, Jira