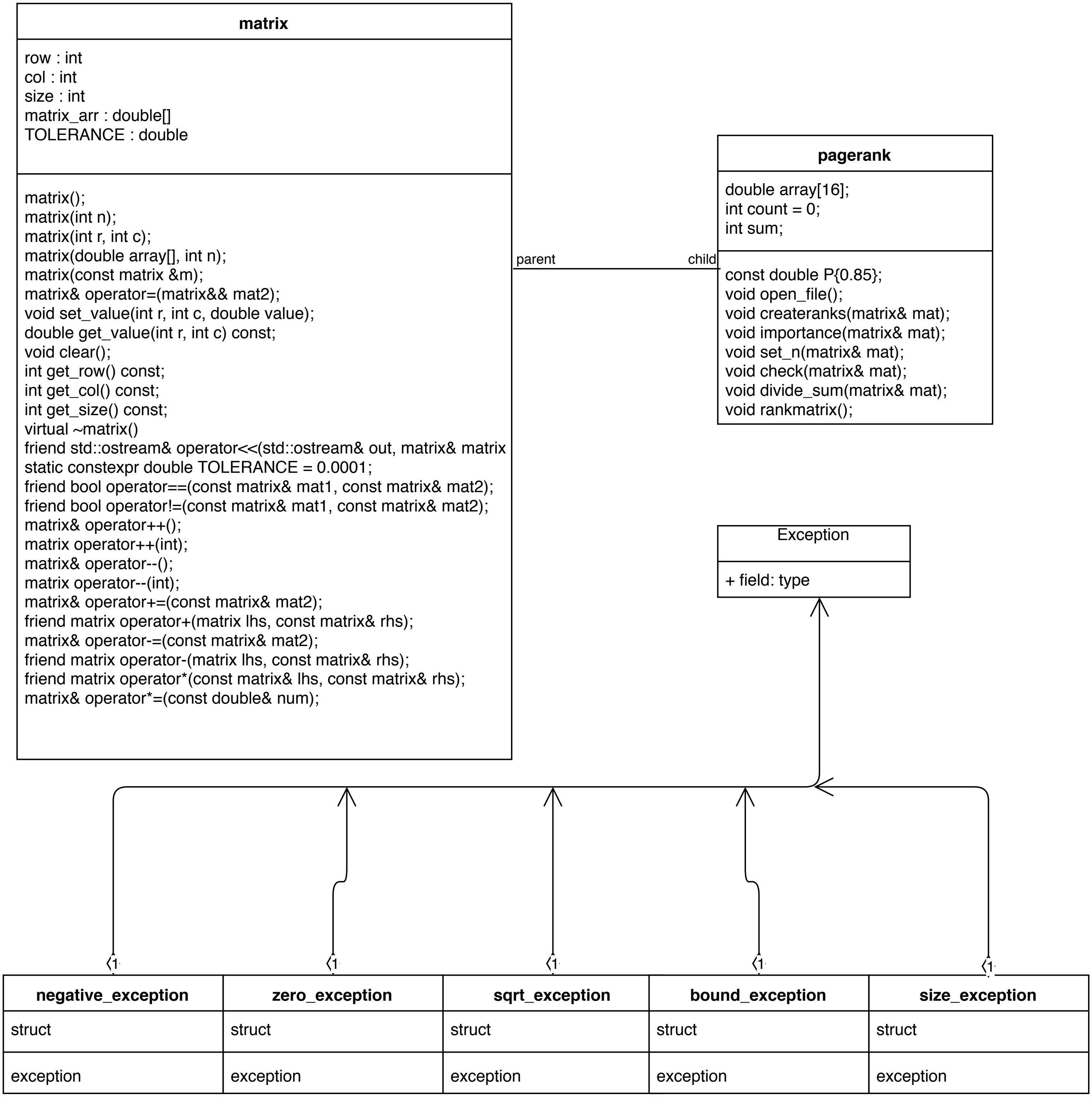

matrix

```
row : int
col : int
size : int
matrix_arr : double[]
TOLERANCE : double
```

```
matrix();
matrix(int n);
matrix(int r, int c);
matrix(double array[], int n);
matrix(const matrix &m);
matrix& operator=(matrix&& mat2);
void set_value(int r, int c, double value);
double get_value(int r, int c) const;
void clear();
int get_row() const;
int get_col() const;
int get_size() const;
virtual ~matrix()
friend std::ostream& operator<<(std::ostream& out, matrix& matrix
static constexpr double TOLERANCE = 0.0001;
friend bool operator==(const matrix& mat1, const matrix& mat2);
friend bool operator!=(const matrix& mat1, const matrix& mat2);
matrix& operator++();
matrix operator++(int);
matrix& operator--();
matrix operator--(int);
matrix& operator+=(const matrix& mat2);
friend matrix operator+(matrix lhs, const matrix& rhs);
matrix& operator-=(const matrix& mat2);
friend matrix operator-(matrix lhs, const matrix& rhs);
friend matrix operator*(const matrix& lhs, const matrix& rhs);
matrix& operator*=(const double& num);
```

pagerank

```
double array[16];
int count = 0;
int sum;
```

```
const double P{0.85};
void open_file();
void createranks(matrix& mat);
void importance(matrix& mat);
void set_n(matrix& mat);
void check(matrix& mat);
void divide_sum(matrix& mat);
void rankmatrix();
```

Exception

+ field: type

negative_exception	zero_exception	sqrt_exception	bound_exception	size_exception
struct	struct	struct	struct	struct
exception	exception	exception	exception	exception